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NOMINATION OF KRYSTA L. HARDEN TO BE DEPUTY SECRETARY OF AGRICULTURE AND ROBERT BONNIE TO BE UNDER SECRETARY OF AGRICULTURE FOR NATURAL RESOURCES AND ENVIRONMENT

HEARING

BEFORE THE

COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

JULY 23, 2013

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NOMINATION OF KRYSTA L. HARDEN TO BE DEPUTY SECRETARY OF AGRICULTURE AND ROBERT BONNIE TO BE UNDER SECRETARY OF AGRICULTURE FOR NATURAL RESOURCES AND ENVIRONMENT

Tuesday, July 23, 2013

UNITED STATES SENATE,
COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY,
Washington, DC

The Committee met, pursuant to notice, at 10:36 a.m., room 328A, Russell Senate Office Building, Hon. Debbie Stabenow, Chairwoman of the Committee, presiding.

Present or submitting a statement: Senators Stabenow, Bennet, Donnelly, Cochran, Chambliss, Hoeven, Grassley, and Thune.

STATEMENT OF HON. DEBBIE STABENOW, U.S. SENATOR FROM THE STATE OF MICHIGAN, CHAIRWOMAN, COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY

Chairwoman STABENOW. Well, good morning.

The Senate Agriculture, Nutrition, and Forestry Committee will come to order and we are delighted to have this nomination hearing this morning.

I first want again, brag about our Committee and thank our members. We were successful by unanimous consent of replacing House Farm Bill with the complete bipartisan Farm Bill on Thursday evening and sent it back to the House and asked for a conference.

This would not have been possible without extraordinary leadership on this Committee. I always thank Senator Cochran and Senator Chambliss, who is sitting here, played a tremendous role in that. I want to thank you very much for your leadership in that effort as well.

Senator Hoeven, who is not here at the moment, who also stayed on the floor Thursday night was very helpful. All the members were extraordinarily helpful, and I am optimistic that we are going to get a Farm Bill because we in the Senate worked together on a bipartisan basis and we are committed to getting it done and I think our ability to do that last week was an example of why it is going to get done.

So I just want to thank all of our members on both sides of the aisle for continuing to keep our eye on the prize which is making sure that we are putting together a comprehensive five-year Farm

Bill for our farmers and ranchers and consumers and rural communities and everybody who likes to eat.

[Laughter.]

Chairwoman STABENOW. So, we are happy to do that.

So, let me say today the Committee is meeting to consider the nomination of Krysta Harden of Georgia to be the Deputy Secretary of the United States Department of Agriculture and Robert Bonnie of Kentucky to be Under Secretary for Natural Resources and the Environment at the Department of Agriculture.

We welcome and congratulate both of you on your nominations and we also welcome your families and certainly want to give you an opportunity, when you are speaking, to introduce them as well.

These positions are critically important for America's farmers and ranchers and our natural resources that serve as the foundation of our wealth as a Nation. The Deputy Secretary position at the Department of Agriculture is a vital role as the second-highest ranking official in the USDA.

That means that our nominee will play a critical role in managing the Department as it works to enhance the safety and quality of the U.S. food supply while serving America's farmers in rural communities.

Ms. Harden, I hope that you will use your perspective that you have gained as a longtime public servant to improve the operations of the Department by assessing how the agencies are measuring performance and efficiency, cutting down on duplication, and reviewing the quality of customer service which I know is a continual focus.

I have confidence that your experiences as Chief of Staff and as Assistant Secretary for Congressional Relations at the USDA have prepared you to manage relations between the Department and lawmakers as well as interagency concerns as well.

Mr. Bonnie, the Under Secretary for Natural Resources and Environment at the USDA also plays a key role. As Under Secretary, you will be the principal advisor to the United States Secretary of Agriculture on policy to promote the conservation and sustainable use of our Nation's natural resources on private lands and to sustain production of all the goods and services that the public demands of our National Forests.

I trust, Mr. Bonnie, that your prior position as a Senior Policy Adviser for the USDA has prepared you to take on the tremendous task of overseeing the day-to-day operations of the U.S. Forest Service and Natural Resources Conservation Service.

Ms. Harden and Mr. Bonnie, your nominations come at a very important time. The staff at the Department of Agriculture has been and will continue to be an indispensable resource for us as we move forward with the Farm Bill.

USDA provides the boots on the ground, working directly with our farmers and ranchers to implement vital programs that we have worked so hard to make more efficient in the Senate-passed Farm Bill.

We write the legislation, but it is up to you to implement the policies and to create the rules that best serve the 16 million people whose jobs depend on American agriculture.

I know I speak for all the members of the Committee when we say that we take our obligation to advise and consent very seriously and we look forward to your remarks.

Before turning to my distinguished Ranking Member, I would like to offer two items into the record. The first is a letter in support of Ms. Harden's nomination by roughly 140 agriculture groups.

[The following information can be found on page 104 in the appendix.]

Chairwoman STABENOW. The second is a letter in support of Mr. Bonnie's nomination signed by roughly 90 conservation and forestry groups. Those are quite the coalitions.

[The following information can be found on page 99 in the appendix.]

Chairwoman STABENOW. If there are no objections, the letters will be inserted into the record.

Seeing none, I would now like to turn to Senator Cochran.

STATEMENT OF HON. THAD COCHRAN, U.S. SENATOR FROM THE STATE OF MISSISSIPPI

Senator COCHRAN. Madam Chair, I am very pleased to join you in welcoming our witnesses and the nominees for offices that are very important in the Department of Agriculture. I think both of them are very well qualified by virtue of their experiences and performance of duties in the government as well as private sector organizations in the field of agriculture.

I look forward to their testimony and to their favorable consideration by the Committee.

Chairwoman STABENOW. Thank you very much.

Before turning to Congressman Bishop, who I know would like to introduce our first nominee, and welcome, Congressman; it is wonderful to have you here for the Committee, but I know that Senator Chambliss also wanted to say a few words.

Senator Chambliss.

STATEMENT OF HON. SAXBY CHAMBLISS, U.S. SENATOR FROM THE STATE OF GEORGIA

Senator CHAMBLISS. Thank you very much, Madam Chair. It is a privilege for me to have a chance to introduce again to this Committee my long-time dear friend Krysta Harden. It is hard to believe that I first met Krysta in 1980 when she was a volunteer for then aspiring Congressmen Charles Hatcher and she gets the sole credit for him being elected that year.

[Laughter.]

Senator CHAMBLISS. She has not gotten any older but I have. She has been my dear friend since then and it has been a real privilege to watch Krysta to grow and mature into the great, great person she is now but also the great leader she is now.

She has great experience both on and off the Hill in preparing for this position that she has been nominated to which obviously is the number two position at USDA.

Krysta served in Congressmen Hatcher's office for many years, starting out as a receptionist and ending up as Chief of Staff. That is the kind of job that she did for him. She also worked on the Agri-

culture Committee as Chief of Staff or one of the Subcommittees that Charles was the Chairman of.

But probably, and of course, being in the Administration now, was congressional liaison and then Chief of Staff to the Secretary, letting her know what was going on inside USDA over the last several years.

But, I think probably what has prepared her most for this job is the fact that she grew up on a farm in south Georgia. Her dad who is also a dear friend, Jimmy "Hardrock" Harden is here. He is a row crop farmer in south Georgia.

Krysta knows firsthand what it is like to watch the crops be planted and hope there is rain and hope prices continue to rise. So, she is well prepared for this position and it is, indeed, a privilege for me to introduce her to the Committee today for the position of Deputy Secretary of Agriculture.

Chairwoman STABENOW. Thank you so much also.

Congressman Bishop, we would welcome any comments and thoughts from you as well before we turn to our nominees.

STATEMENT OF HON. SANFORD BISHOP, U.S. REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Mr. BISHOP. Thank you very much.

Good morning, Madam Chair Stabenow, Ranking Member, Senator Cochran, and members of the Committee.

It is my distinct honor and privilege to come today joined by our distinguished senior Senator from Georgia and my good friend, Saxby Chambliss, is to support the nomination of Krysta Harden as the next Deputy Secretary of the United States Department of Agriculture.

I have known Krysta and her husband Charles for decades and consider them to be dear friends. She also happens to be my constituent, hailing from the largely rural second Congressional District of Georgia, the heart of production agriculture as you have heard having been born and raised on one of the many peanut farms in our area in Mitchell County.

Though she served many years in Washington D.C., Krysta still refers to herself as a Georgia farm girl. I am proud to say that she has never forgotten her roots and that she will bring a wealth of knowledge and experience wound from our rustic upbringing as well as her many years of federal experience to the new position at USDA.

It has already been mentioned that she grew up and worked on the land on a farm, that she spent 16 years on Capitol Hill including a stint as Staff Director for the House Agriculture, Peanut, and Tobacco Subcommittee.

She served for six years as CEO with the National Association of Conservation Districts, which represents the 3000 districts tasked with carrying out our national resource management program, and most recently, of course, during the first Obama Administration, she joined Secretary Tom Vilsack at USDA as the Assistant Secretary for Congressional Relations, ultimately working her way up and earning the promotion in 2011 by Secretary Vilsack as the Department's Chief of Staff.

As a member of the House Appropriations Subcommittee on Agriculture, I have had the privilege of personally working with Krysta on a range of challenging and sensitive issues during her tenure in the Administration.

I can say that I found her to be bipartisan and no-nonsense in our approach to problem-solving, demonstrating our ability to listen and her persistence and follow-through; and they had been altogether refreshing and valuable, I think, whether working on national issues such as the re-authorization of the Farm Bill or the Administration's proposed reforms for the crop insurance and direct payment programs or working with the Congressional Black Caucus on developing legislative framework for the farmer settlements or assisting that our office or other offices in helping local farmers overcome some of the challenges with the county FSA offices. I have always found her to be honest, forthright, and fair.

I have every belief that she represents the highest standards of public service. So, I have every confidence that she will perform admirably as the Deputy Secretary of the USDA and I wholeheartedly support her nomination for this very, very important position.

So, thank you, Madam Chair and members of the Committee, for allowing me to have these few words to second the nomination and to support my friend, my colleague, my constituent Krysta Harden.

Chairwoman STABENOW. Well, thank you very much, Representative Bishop.

I think, Ms. Harden, from your perspective we should just adjourn your portion of the meeting at this point, I think.

[Laughter.]

Chairwoman STABENOW. But we will proceed with both of you who have come with very impressive support. Let me officially introduce you.

Our first nominee is Krysta Harden. Ms. Harden is currently, as we know, Chief of Staff at the USDA, a position that she has held since 2011. Prior to this, Ms. Harden served as Assistant Secretary for Congressional Relations at USDA in 2009 through 2011.

From 2004 through 2009, she served as the Chief Executive Officer of the National Association of Conservation Districts. At NACD, she was actively involved with the Committee in building broader coalitions around the conservation title of the farm bill.

Previously, Ms. Harden was the Senior Vice President of Gordley Associates from 1993 to 2004. She also served as Staff Director for the U.S. House Committee on Agriculture Subcommittee on Peanuts and Tobacco from 1992 to 1993.

Ms. Harden received her BA in journalism at the University of Georgia, and there may be others here with you today, but I do want to recognize your father, Jimmy Harden, and your husband, former Congressman Charles Hatcher. Welcome to both of you. We are happy to have you.

Our next nominee is Robert Bonnie. Mr. Bonnie is currently a Senior Policy Adviser at USDA, a position he has held since 2009. Prior to this, he worked for the Environmental Defense Fund where he held a number of roles from 1995 until 2008, including Vice President of Land Conservation and Wildlife and Managing Director of the Center for Conservation Incentives.

Mr. Bonnie served on the board of visitors at Duke University Nicholas School of the Environment and Earth Sciences. He was a member of the board of directors for the Piedmont Environmental Council in Scenic America.

Mr. Bonnie received an AB from Harvard College and an MF and MEM from the Duke University Nicholas School of the Environment. I understand, Mr. Bonnie, that your wife Julia Gomena and your brother Shelby Bonnie are also with you today. So, we welcome them.

Now, there are two things that we need to do before hearing from you. One is to administer an oath that we have for all of our nominees and I would ask you to stand and raise your right hand.

Do you swear that the testimony you are about to present is the truth, the whole truth, and nothing but the truth so help you God?

Ms. HARDEN. I do.

Mr. BONNIE. I do.

Chairwoman STABENOW. Secondly, do you agree that if confirmed, you will appear before any newly constituted Committee of Congress if asked to appear?

Ms. HARDEN. Yes.

Mr. BONNIE. Yes.

Chairwoman STABENOW. Thank you very much.

At this point, we would like to proceed, Ms. Harden, with your remarks, welcome.

TESTIMONY OF KRYSTA HARDEN, OF GEORGIA, NOMINATED TO BE DEPUTY SECRETARY OF AGRICULTURE

Ms. HARDEN. Madam Chairwoman and members of the Committee, thank you for this opportunity to appear today before you as President Obama's nominee to serve as Deputy Secretary of the U.S. Department of Agriculture.

I apologize, every time I read that, it's just hard to believe.

I want to begin by expressing my appreciation to the President for nominating me and to Secretary Vilsack for his great leadership at USDA.

I want to thank you, Senator Chambliss, for your kind words today. Your friendship and support have meant so much to me for many years and a thank you to Congressman Bishop for coming over to the Senate side and spending your time for all those kind words. Thank you too, sir.

With me today is my husband of 17 years, Charles Hatcher. There is so much I would like to say about him, but for the sake of time, I will just say that he is my biggest champion, my strongest supporter and best friend. Thank you, Charles, for all you have done to make this day possible for me.

I would also want to thank my wonderful parents, Jamie and Jimmy Harden. My daddy is here representing the family, as you have heard. It takes a lot to get him off the farm, especially this time of year.

[Laughter.]

Ms. HARDEN. So, I would like to say thank you to him for being here.

I want to send a big hello and a hug to my mama Jamie and my sister back home in Georgia. I am truly blessed with a loving and supportive family.

Finally, I want to recognize my friends and colleagues from over the years. Many are here today or watching via the Internet. Your guidance, your friendship, and help are very much appreciated.

I am a product of rural America. Even during my time in Washington, I had considered Georgia home. I grew up in Camilla, Georgia on my parents farm. My daddy grew up raising tobacco, fruits, and vegetables; and my mommy came from a traditional row crop farm where her family also had a cow/calf operation.

Their backgrounds show the incredible diversity of American agriculture. My home also reminds me of rural America and the need for a thriving rural community. When I graduated from college I did not see opportunity in rural Georgia.

Today, too many young people face that same challenge. They feel deeply connected to rural America but they are not sure how to stay. We owe them strong rural communities.

I have done my best to contribute to that goal over the years from my time as a House staffer, to working with soybean producers at Gordley Associates, to serving as CEO of NACD and finally serving on the leadership team at USDA.

I am proud of what we have accomplished during my time at the Agriculture Department. We quickly implemented the 2008 Farm Bill which has allowed us to deliver record results. This includes record farm loans, record investment in small towns, record conservation efforts and record agriculture trade.

We have supported agriculture research, expanded local and regional markets and improved the safety of our food supply. In partnership with this Committee, we also achieved passage of the Healthy, Hunger-Free Kids Act of 2010 and we have provided dependable nutrition assistance to millions of American families.

Today, our work is not finished. If confirmed, I will continue our efforts to strengthen the rural economy in several key areas.

First, we can continue to support our farmers and ranchers to grow existing markets and create new ones. If confirmed, I would help open more doors around the world for quality U.S. products. We can expand local and regional markets.

If confirmed, I want to grow the numbers of farmers markets and regional food hubs around the country. This creates new income opportunities and it helps to ensure that there is a place for everyone in agriculture. We need new farmers and they are coming from all walks of life, young people, immigrants, returning veterans, and women more than ever are starting all sizes of operations. We can give them the tools to get started and to keep growing.

We are on the cutting-edge of new conservation opportunities today. USDA can help protect our natural resources and tap into economic opportunity through increased outdoor activities, and we can grow the outdoor-based economy.

Many of us here today have worked hard over the years to harness the potential of home-grown products. I share Secretary Vilsack's belief that rural America can do even more, creating new jobs in the process.

Throughout all of this work, we must continue to foster a new era of civil rights at USDA. With the support of this Committee, we have taken steps to correct USDA's past history of discrimination and we can ensure history does not repeat itself.

To carry out much of our work, USDA relies on the Farm Bill. We remain committed to helping Congress pass a comprehensive agricultural reform food and jobs act that builds on the strong bipartisan spirit shown in the U.S. Senate. If confirmed, I look forward to leading our effort to implement this legislation swiftly once it is passed.

Finally, in a time of tight budgets, if confirmed, I will support USDA's proactive efforts that have already saved more than $828 million in recent years.

Madam Chairwoman and members of the Committee, thank you for this opportunity to appear before you today. I come from a small town with parents who are still on the farm. But I know that Camilla, Georgia is just one of the thousands of wonderful small towns in every corner of the Nation. They are the backbone of our country and the heart of our values. They deserve our best.

If confirmed, I look forward to working with you, President Obama and Secretary Vilsack to deliver results for rural America and create opportunity for generations to come.

Thank you, and I look forward to answering any questions you might have.

[The prepared statement of Ms. Harden can be found on page 25 in the appendix.]

Chairwoman STABENOW. Thank you very much.

Mr. Bonnie, welcome.

TESTIMONY OF ROBERT BONNIE, OF VIRGINIA, NOMINATED TO BE UNDER SECRETARY OF AGRICULTURE FOR NATURAL RESOURCES AND ENVIRONMENT

Mr. BONNIE. Thank you. Madam Chairwoman and members of the Committee, I want to thank you for the opportunity to appear before you today and for your consideration of my nomination as Under Secretary for Natural Resources and Environment at USDA.

I want to thank President Obama for nominating me and Secretary Vilsack for his confidence in me. If confirmed, I look forward to working with Secretary Vilsack to build upon the Administration's commitment to rural America through the conservation of our working lands, and our National Forests.

I want to start by thanking my wife Julie, who is here today, and my daughter Lilly, both of whom have seen a little less of me as a result of my government service. If confirmed, I suspect that will not change a whole lot and I appreciate their love and patience.

Also, I want to recognize my mother, my father, and my brother Shelby who is here today as well. They have encouraged my interest in the outdoors.

My commitment to conservation began at an early age. I grew up on a farm in Kentucky and, as a kid, spent a lot of time outside fishing, hunting, and helping out around the farm.

My family has also owned and managed forest land in South Carolina for over a century. As a forester, I worked directly on managing these lands for timber, for wildlife, and for recreation.

I understand from personal experience the challenges of maintaining family-owned farms and forests while being good stewards. Our working lands and our National Forests provide significant benefits to the American people, including food and fiber, clean water, wildlife habitat, and recreation.

USDA's Natural Resources Conservation Service in particular plays a key role in the voluntary conservation of working lands by providing financial and technical assistance to farmers, ranchers, and forest owners to conserve soil and water, to improve rangeland and to protect habitat for hunting and fishing.

In particular, NRCS makes it possible for landowners to enhance the productivity of their operations while conserving natural resources. In a budgetary environment where resources are limited, focusing NRCS resources on important conservation challenges and leveraging additional capacity from partnerships with farm, conservation, and other stakeholders will remain important.

Continued innovation through efforts such as working lands for wildlife that combine financial and technical assistance with regulatory assurances is also important.

Through authorization of a comprehensive food farm and jobs bill is central to USDA's work on conservation. This Committee and the U.S. Senate have passed strong, bipartisan legislation to reauthorize farm programs; and if confirmed, I will work with Secretary Vilsack to highlight the importance of passing long-term legislation; and when such legislation passes, I will work with NRCS and the Forest Service to implement the legislation in a timely way.

America's forests face significant threats including catastrophic wildfire and pine bark beetles on National Forests, and the loss of our private working lands to development.

On our National Forests, we must work in collaboration with communities, with forest industry, and with conservation groups to increase the pace and scale of restoration and management.

If confirmed, I will work with the Secretary and with Forest Service Chief Tidwell, to treat more acres on National Forests, to produce more timber and biomass, and to improve the ecological health of our forests.

Catastrophic wildfire is an enormous challenge for the Forest Service and its federal and state partner agencies. Since the 1970s, average acreages burned have more than doubled to over 7 million acres a year. Fire seasons are now 60 to 80 days longer. A warming climate, increased fuel loads, and housing construction in the wildland urban interface have increased threats to people, property, rangeland, and forests.

The President and the Secretary have spoken about the fiscal challenges related to wildfire. The Forest Service now spends about 40 percent of its budget on fire, forcing the agency to make difficult decisions including curtailing funds for management activities that might otherwise reduce threats from fire. If confirmed, I look forward to working with the President, the Secretary, and all of you to address this challenge.

In our working forests, we must ensure landowners have the economic incentives to conserve and maintain lands to the long term. Here NRCS and the Forest Service can work together to ensure

land owners have the incentives and the markets to keep forests as forests.

Outdoor recreation, including hunting and fishing and many other activities, is also important to the economies of rural communities. If confirmed, I will work with NRCS, the Forest Service, and other agencies across the federal government to promote outdoor recreation on our public and private lands.

Madam Chairwoman and members of the Committee, in closing, I want to again thank you for the opportunity to appear before you today. Conservation of our natural resources is closely linked to the prosperity and well-being of rural and urban Americans alike. If confirmed, I look forward to working with President Obama, with Secretary Vilsack to contribute to the conservation of our working lands and forests.

Thank you.

[The prepared statement of Mr. Bonnie can be found on page 22 in the appendix.]

Chairwoman STABENOW. Thank you very much.

Senator THUNE. Madam chairwoman, will we have the opportunity to submit questions for the record if we cannot do it today?

Chairwoman STABENOW. Absolutely. We are happy to accept both opening statements and questions for the record. Thank you.

First, let me just ask both of you. You have been with the Department over the last four years. There have been a lot of challenges, a lot of accomplishments. I wondered if you each might speak to one or two examples in your experience that demonstrates both the challenges you have faced and the role that you have played in addressing them as you look to your new roles.

Ms. Harden.

Ms. HARDEN. That is a good question. I think the first thing that comes to my mind, Madam Chairwoman, is managing it with uncertainty on budgets. I think of the four years that I have been at USDA, three of those years we have not had a budget, not knowing if we are going to have a continuing resolution, trying to keep the workforce focused across the country, across the world. Our folks do not always understand how Washington works or sometimes do not. So, trying to manage through that and making sure that we continue to provide the quality service that we are known for.

We have the greatest employees I believe in any institution at USDA. They want to serve. Our stakeholders, they want to do the right thing, but I think that would probably, in preparing for this job, would give me the understanding of what is needed to keep folks focused and doing that kind of work even with uncertainty.

I think the other thing that comes to mind is being involved in the implementation of the 2008 Farm Bill, we walked in needing to get that done quickly. Folks were waiting. Our stakeholders needed to have results from the department. So being prepared hopefully to implement the 2012 will be the two issues that come to mind.

Chairwoman STABENOW. Thank you.

Mr. Bonnie.

Mr. BONNIE. Senator, I think one of the issues I would mention is our work on the drought last summer. I worked with the Secretary, NRCS, FSA and even the Forest Service to work to provide

some flexibility for landowners that we are dealing with a very difficult drought situation.

On the NRCS side, we targeted some Farm Bill dollars to help with drought mitigation. On the CRP side, it was about making sure that we provide some flexibility in the program to allow for some emergency haying and grazing and to move quickly in a way that we could do that would pass legal scrutiny as well. We worked quickly to do that.

We had a tough fire season as well last summer and again this summer and so we worked with the Forest Service to make sure we have the resources, whether it is air tankers or otherwise.

Those are two areas where, I think, we have had to a little bit of thinking on the fly and work within the resources we have but recognize that the stakes are big for our stakeholders, farmers, ranchers, and forest landowners and for the public that relies on the food and fiber that they and the National Forests produce.

Chairwoman STABENOW. Just a little bit more, talking about thinking on the fly or being creative, we all know we are in very challenging times as it relates to resources. Our Farm Bill saves money in the ways of streamlining that we hope will make it actually easier to implement and better for folks on the ground, farmers and ranchers and so on. But, it is going to involve a lot of creative thinking as we go forward as we look at how we leverage funding and so on.

So, I wonder if each of you might just speak of little bit more about that as we are looking at tight resources, leveraging funds, being creative, anything along that line that you would want to talk about.

Ms. HARDEN. I will first highlight a couple of things. The first that comes to mind, as I mentioned in my opening statement, about the $828 million that we proactively have been able to avoid spending at USDA, and that is really by being creative.

It is a blueprint for stronger services, what we have called this initiative and looking at ways to consolidate contracting, look at the way we manage our procurements of buildings and facilities, looking how to modernize our workforce, using all the tools that we have available proactively thinking about what is ahead. So, I think those kinds of things we have to continue.

I learned a lot about working in partnerships when I was NACD, working with states, federal, local districts and building on those partnerships; sharing the workload, working together, making sure you are not duplicating.

Those are the two examples that I would have.

Mr. BONNIE. I will just add to that. I think clearly we are all operating in a difficult fiscal environment. In the case of the Farm Bill, it means leveraging our resources through partnerships, the kind of leverage that I think you all were thinking about in putting together regional conservation partnership initiative in the Farm Bill. That is exactly the approach we need to take.

We need to bring partners to the table, leverage our resources. I think it is also important to think about priority setting. We are going to have to use our resources in a way that generates the most benefit for the public and obviously generates important benefits for natural resources as well.

Chairwoman STABENOW. Let me just in closing my time, really commend both of you and the Secretary and the Department because when you look at percentage-wise across in the Federal Government, we have seen more cuts I think in agriculture than just about any other area.

You have had to manage a tremendous amount of cuts and rearranging things; and when I look at agricultural research, I am very concerned that has been the area hit harder than any other area of research in the federal government around food safety and pests and disease and so on.

I am hopeful that while we will continue to focus on structuring dollars, that agriculture will be treated fairly in the context of the overall budget discussion. That is our job as well.

Senator Cochran.

Senator COCHRAN. Madam Chair, I am pleased to join you in welcoming our distinguished witnesses this morning and congratulating them on their nomination. We look forward to working with you in trying to be sure that we do the things that we need to do to help promote American agricultural interests and create an environment where we are working together, the public sector and private enterprise can help assure the continued viability and profitability of American farms.

We know that you both have personal experiences that you will be able to draw on to help deal with the challenges that these offices have.

First of all, I want to ask Ms. Harden. I know that you realize I have got to ask about catfish inspection. So, I might as well just go on and get that out of the way.

[Laughter.]

Senator COCHRAN. What are your thoughts about how we can implement in a responsible way a catfish or aquaculture program guaranteeing the wholesomeness and the fitness for food of these fish throughout the United States?

Ms. HARDEN. Senator Cochran I would have been disappointed if you did not ask me.

[Laughter.]

Ms. HARDEN. It is a complex issue as you know very well and I would say to you, if I am confirmed by the Senate, that I will work with you for a path forward this year on this issue. I know you have waited a long time and I will work with you on this, sir, if I am confirmed.

Senator COCHRAN. Mr. Bonnie, do you have any thoughts about that?

[Laughter.]

Mr. BONNIE. I think I will stay away from this one.

Senator COCHRAN. Well, you have some important responsibilities too. I think in our State somebody was surprised to find out that forestry and forest products were the number one commodity for production of income for landowners and those involved in the industries.

What are your thoughts about carrying out the provisions of the Farm Bill that provide programs under the jurisdiction of the National Resources Conservation Service and how you can assist

farmers in dealing with challenges that they face in the marketplace today?

Mr. BONNIE. I think on the forestry side, if you look at private forest lands across the United States, we are losing, slowly losing our private working lands and they provided incredible benefits to the public.

NRCS has made some really important strides in working with landowners on everything from timber stand improvements to reforestation. I think it is going to be critical in places like Mississippi where forests not only provide places where people hunt and fish and important natural resource benefits to the communities there but it also is critical to the economic infrastructure.

So, working with farmers and forest landowners to keep forest viable to make sure it remains an important economic resource that they can grow timber and produce all those benefits but also do it economically viably I think is critically important.

Likewise, on the agricultural side, the work that NRCS does to not only encourage good stewardship but do it in a way that enhances the productive capacity of the land is going to be critically important.

I think that is an area where NRCS is a bit of an unsung hero frankly in conservation and there is a lot more work to do there; and if confirmed, I look forward to doing it.

Senator COCHRAN. Thank you.

Thank you, Madam Chair.

Chairwoman STABENOW. Thank you very much. I also want to thank Senator Cochran. When I was in Mississippi speaking to the Delta Council, he made sure we had catfish. It was good.

Senator Bennet, the Chair of our Conservation Subcommittee.

Senator BENNET. Thank you. I would like to thank Senator Cochran for his catfish question. We are not producers of catfish in Colorado but I am married to a woman from the Mississippi Delta and rural Arkansas so we are consumers of catfish in Colorado and look forward to working with you and following your work on this.

Ms. Harden, congratulations to both of you and thank you for your service and you're incredibly well qualified for these jobs and I look forward to working with you.

I wanted to ask Ms. Harden first a question about exports. You alluded to this in your testimony. We often talk in this Committee about the safe, and affordable and abundant food supply that we enjoy as Americans. That is all true. That is certainly true.

But, the rest of the world is also paying attention to what we are doing here and more consumers from overseas are opening their wallets to our production here.

My office has held eight sessions around the State, eight export workshops, an initiative we are calling Beyond Colorado, aimed at helping farmers, ranchers, and small businesses export their products and I can tell you there is tremendous interest among our producers about this worldwide market.

So, with exports representing one of the greatest opportunities to create new wealth in agriculture, what more can the USDA do to help facilitate more business opportunities for our farmers and ranchers around the world?

Ms. HARDEN. Thank you, sir, I could not agree with you more.

As I did mention in my testimony, that is one area I hope to really focus on in making sure that we do open more of those doors and more of those markets.

The trade agreements that we have with South Korea, Panama and Colombia immediately open markets that we have not had access to. So, that is a start obviously. TPP and discussions in the EU are underway so we are hoping that those will conclude.

We have been working on non-tariff barriers at USDA to get our products into new markets. It has been a priority for USDA even during tough budget times to make sure that we are leading trade missions with U.S. companies and producers and state departments of agriculture. We had a trade mission to Turkey just this summer. There is one scheduled in the fall with South Africa.

So, we very much agree with you, sir, and I personally pledge to you that I will work in this area if I am confirmed by the Senate.

Senator BENNET. I look forward to working with you on that. I think this is just vital for job creation in rural Colorado and rural America. So, thank you.

Mr. Bonnie, I know that you are well aware of the issues that we are facing in Colorado with our forests both in terms of the wildfires and beetle infestation that we've had. It has been a very, very difficult time for us.

We've noticed that the Forest Service's 2012 report on restoration and job creation on our National Forests called for large landscape-level environmental analyses extensively to accelerate restoration over a large area without having to do countless studies.

I understand the Black Hills National Forest in my colleague Senator Thune's State of South Dakota recently undertook such an analysis covering 250,000 acres.

So, my question is whether the Forest Service plans to do any additional landscape-level analysis in other states; and if so, I would gladly volunteer Colorado as a place where you can do your next one.

Mr. BONNIE. Well, I think these types of approaches are going to be critically important. We have got the quarter of a million acres in the Black Hills National Forest. We have got one in the Four Forest Restoration Initiative in Arizona which is a million acres.

We are trying to do this to both provide the landscape-scale work we need to do to be able to confront this problem of both bark beetles and catastrophic fire but at the same time do a large enough project so that the forest industry, has certainty that they can invest in the mills and the infrastructure they need to help carry out these efforts.

We are going to try to do more of this. The Chief is interested in doing more of it and there is an enormous need, as you know better than anyone, in Colorado particularly on the front range where we have challenges related to fuel buildup intermixed with communities that are right in the wildland-urban interface.

So, this is just the type of approach that we are interested in that we want to do more of and we would love to work with you to take it forward.

Senator BENNET. We will take you up on that.

Madam Chair, I know that you know this. This beetle kill in Colorado is a wasting asset. If we do not figure out how to use it and get it milled, it is not going to be there anymore.

I mentioned to you, Mr. Bonnie, when we were together. I recently had a chance to visit a small mill named Colorado Timber Resources who are making two by fours that they are shipping to Louisiana. Their view was that they could triple their production if we could figure out how to get them for this material.

So, I look forward to working with you. Thank you.

Thank you, Madam Chair.

Chairwoman STABENOW. Thank you very much.

Senator Chambliss.

Senator CHAMBLISS. Thanks very much, Madam Chair.

Krysta, you alluded to this in your opening statement and obviously I know what your answer is but just for the record, as you know, we are in the process of trying to complete a Farm Bill this year.

It is imperative that we get that done, and thanks to the leadership of our Chairman and Senator Cochran hopefully we are headed that way.

But, we had some implementations issues with both of the last two Farm Bills. Some of it was relative to new programs that were created that you are very familiar with. I do not think we got anything new and different in this program but we certainly have a lot less money to operate with than we have ever had.

I simply would like a commitment from you that you are going to work as hard as you can to make sure that once this bill does get signed into law that the Department of Agriculture is going to implement the new Farm Bill as quickly as possible to give our producers some certainty and some definitive answers to the many issues that they are going to have in that Farm Bill.

Ms. HARDEN. Senator Chambliss, we are ready. You all send us a Farm Bill, we will get it done in a timely and orderly manner and I hope to be leading that effort if I am confirmed by the Senate.

Senator CHAMBLISS. Mr. Bonnie, as you know, palmar amaranth, which is commonly known as pigweed, has developed a resistance to glyphosphate which is a widely used herbicide. NRCS has a pilot program that was developed through EQIP that helps cotton farmers control this resistant pigweed.

I would like to note that the control measures were developed by Stanley Culpepper, as you know, at Tifton Campus at the University of Georgia.

Can you give me an update on that program? There have got to be other issues out there too relative to resistance to our herbicides. What has NRCS got on the table relative to how we are going to combat these resistant weeds?

Mr. BONNIE. Yeah, this is a challenge across the country. In the case of the work in South Georgia, I believe NRCS has put about $1 million into this program over the fiscal year 2010 through 2012 and it is seeing some real results.

I think we are seeing some benefits in that pilot project and hope that we can take the lessons from that and use a program like

EQIP or other Farm Bill programs to spread the gospel, as it were, both through technical assistance and through financial assistance.

I would think more broadly that this is a perfect example of where NRCS programs can both work on critical natural resource conservation challenges and improve the productive capacity of our farmers and ranchers to produce food and fiber.

This is an area that I think is a growing problem and we are going to need to tackle it more aggressively as we move forward.

Senator CHAMBLISS. One other program that has been really beneficial to Georgia forestry farmers is the Longleaf Pine program. It is now making a huge difference in many areas whether it is a erosion or whether it is the long-term economic benefit to our farmers.

I know you are very familiar with it and I hope you will continue to pay close attention to that program and monitor it as we go along in this next Farm Bill.

Mr. BONNIE. I will indeed. As most people who know me, I have a soft spot for Longleaf Pine and it is important. NRCS is doing great work there and that will continue.

Senator CHAMBLISS. Thank you very much, Madam Chair.

Chairwoman STABENOW. Thank you. Now to the Chair of our Subcommittee on Commodities and Markets, Senator Donnelly.

Senator DONNELLY. Thank you, Madam Chair, and congratulations Ms. Harden and Mr. Bonnie. You know, when they called me Senator, I could not believe it either. So, it has been a great honor.

Ms. Harden, just a couple of things. In regards to product that is out there, it is called Enlist, and it is something that we talked about a little bit. This has been under review for four years now.

I said to somebody, you know, I have some kids; and I was fortunate that they were able to graduate college within four years; but they did that in a quicker time than they have been able to complete the review of this.

I was wondering if you have any idea when USDA plans to respond to the latest petition for deregulation.

Ms. HARDEN. I believe I am familiar with what you are talking about.

Senator DONNELLY. Right.

Ms. HARDEN. It is in our General Counsel's Office, and we will be able to provide a response late this summer.

Senator DONNELLY. Thank you very much.

Then this is just a technical issue that we have a place to call. We had a group of farmers from Indiana who came out to speak to folks at USDA on this and kind of got bounced around all week and we would just like to know that we can give you a call and get people squared away when they come into town.

Ms. HARDEN. Most definitely, sir. I have prided myself my entire career and especially my years at USDA at being accessible and responsible to the people that I work for, and I believe that is the taxpayer, and so I assure you, sir, I will be available.

Senator DONNELLY. Thank you very, very much.

Mr. Bonnie, thank you again for coming by the office, both of you. In Indiana, we actually lead the Nation right now in the highest percentage of acres using cover crop.

When it is done right, it increases yields, improves drought resistance, reduces nutrient runoffs that affect in our State almost

what happens through a huge portion of the country when it goes down the Ohio River and goes into other areas.

If it is not done right, though, there can be a lot of negative consequences and that is the pullback that we get from a lot of farmers back home.

So, what was mentioned before by some of the other colleagues here is about technical assistance and that seems to be the key to getting it done right.

I was wondering how you plan to deliver that kind of technical assistance in a better, more effective way that we can reach out to more because it seems every dollar spent on this provides cleaner rivers, reduced runoff and better land stewardship.

Mr. BONNIE. You are exactly right. I think technical assistance is an incredibly valuable role of NRCS and I think one of our goals at NRCS is to get our folks out behind desks and back out into the field where they can interact directly with farmers.

We have got a conservation streamlining delivery initiative to do that. I think that is going to be absolutely critical figuring out ways that we can use new types of technology to interact with farmers to give them ready information on this.

Just as you say, cover crops are incredibly important but they have to be done right. We need to be able to facilitate that by providing information and ready access to information for farmers and ranchers. I think that will continue to be a real priority of NRCS as we move forward.

Senator DONNELLY. I also wanted to ask you about our National Forests in Indiana. A number of Hoosiers are worried about potential reductions in the Forest Service timber harvest goals, and it seems to be that this could be a win-win situation that we want to manage these forests right but my colleague Mr. Bennet was just talking about the tremendous fire problems we have.

He mentioned 40 percent of the budget is on that now. It is the kind of thing that I have been looking closely at personally. How do we reduce the fuel load that is in these forests? To just not manage them is to seem to make the decision to cause things to occur there.

So effective proper management, I think, is the best way to protect our forests in the long run as well. I would like to get your views on that.

Mr. BONNIE. I could not agree more. We have got 60 to 80,000,000 acres across 193 million acres system that are in need of some form of restoration treatment, whether that be low intensity prescribed fire or the type of mechanical treatment where we are going in and thinning forests, making them more resilient to fire.

There is a real opportunity here to improve not only ecological health of forests by doing stewardship the right way and treatments the right way but also to provide jobs and opportunity to local communities.

Of course, it is a balance but the National Forests are a multiple use system. We need to balance timber production with recreation and ecological health of forests but there is a real opportunity here.

We need to do more work and the way over the long term to keep the fire numbers from swallowing the Forest Service budget en-

tirely is to do the work on the front-end that will reduce the severity of fires over the long term.

Senator DONNELLY. Well, congratulations to both of you. We look forward to working with you, and thank you so much for your leadership.

Thank you, Madam Chair.

Chairwoman STABENOW. Thank you very much.

Senator Hoeven, and before you give your questions, you were not here earlier when I said how proud I was of the team effort last week in order to move things forward to go back from the Senate Farm Bill returning to the House but I just want to say once again thank you for the final hours joining me on the floor and being a part of a very important effort and I really appreciate your leadership.

Senator HOEVEN. Thank you, Madam Chairman. I appreciate it and really appreciate your leadership on working so hard to get a new Farm Bill which we very much need.

Chairwoman STABENOW. Yes.

Senator HOEVEN. Again, welcome to both of you and thank you to both of you for coming by my office and sitting down and visiting on some of these important issues for our producers, for our farmers and ranchers. I really appreciate that.

I just want to start out and talk for a minute about the regulatory burden that our farmers and ranchers face. It is something that we talked about, and it is not unique just to agriculture. I am hearing this across every industry.

We understand there is a proper role for regulation. I mean, it is to protect the environment. We want to make sure there are not abuses going on there.

But at the same time, it should not be so burdensome and complex that people do not know how to comply and spend all their time trying to figure out and end up not just being able to farm or ranch in the proper fashion they normally do.

Instead of making sure that you prevent the exception, we are forcing the rule kind of on everybody in a way that really is burdensome, difficult, and complicated.

I tried to give you a couple of examples when we met and I would just like your response, and I will start with Ms. Harden on a couple of these examples and you can sure expand it to something else.

For example, in the area of NRCS maps. North Dakota is a very pothole region of the country. Farmers and ranchers need to understand how to manage their farm or ranch and maintain the wetlands in a reasonable manner.

For example, even in the maps, the NRCS maps from 1990 to 1996, some of the maps were approved, some were not. Farmers still do not know whether they can rely on those maps.

How do you propose, I mean, can we go back and actually look at those maps and get the farmers squared away on that specific issue?

Mr. Bonnie, you can start with this one if you'd like, but I am just using that as an example. I would use the special measures on prevented plant, the one in four rule except then you have to define what is a normal weather year which nobody can define.

How do you cut through this stuff and get our farmers and ranchers some certainty that works for them? I would love both of you to respond. Use these specifics or others.

Mr. BONNIE. I am happy to start on the issues related to wetlands and the prairie pothole region.

We really have two challenges. One is there has been a significant backlog of landowners who have been trying to get wetlands certifications over the last several years. NRCS has worked to put more staff, more contractors there to reduce that backlog by 40 percent. There is still work to be done there and I think that is an area, if confirmed, I will continue to work on.

The second piece has to do with, I think, the issue you raised about maps and data. Are we using the best data? This is another area that NRCS is focused on, continued to do work on, and we will need to do work on going forward to make sure we are using the best data and that farmers and ranchers can rely on that and that we do it in a transparent way.

That is an area that we will continue to work on and, if confirmed, I am happy to focus on it.

Ms. HARDEN. Senator, I will just talk to you in a general sense. Obviously, common sense gets lost sometimes, and I think that is what is needed, practical approaches. Things that sound very good on paper, sound very good in an office here in Washington, just does not make good sense on the ground.

I do not have to go very far to get an earful from my own daddy, sitting in the corner over here, a farmer himself. He says, "Why in the heck are you all doing this this way?"

I understand that. I cannot tell you I can fix everything because that would not be honest but I can tell you I am aware, I understand, I agree with you and that, if confirmed by the Senate, as well as Deputy, I will do what I can in that role to make sure that we do have practical approaches, that common sense applies, and just use my personal experience in recognizing that farmers want to do what is right. I believe that, if given the opportunity to, farmers and ranchers.

Senator HOEVEN. What I would propose and I think it would be helpful is if we could get you to come out to North Dakota, look at some of the wetlands areas, talk to some of the farmers.

On the grasslands, come out and see the grasslands, talk to the ranchers so that when you work on grazing plans and allotments, you have seen it and you have heard from them directly.

I think you hear from a lot of different folks back here but there is nothing better than seeing and then hearing from the people on the ground that are doing it every day. I would ask that you both commit to do that.

Ms. HARDEN. Yes, sir, you have got our commitment.

Mr. BONNIE. Absolutely.

Senator HOEVEN. Thank you very much. I do look forward to working with both of you.

Chairwoman STABENOW. Thank you very much.

At this point we have completed our questions so we want to thank you for being here today and I think it is very clear that we are impressed with both of you and I would just speak for myself, looking enthusiastically toward supporting your moving forward in

this process. We will not be voting today on your nominations, but I will be working with Senator Cochran to find the time as soon as possible for a business meeting so that we can actually vote out your nominations.

We look forward to working with both of you. We have a lot of work to do, now it is on us to get a Farm Bill done and then it will move to you in implementing that in the quickest, most efficient way for our farmers and ranchers. I know this will be a top priority for both of you.

So, congratulations again on your nominations.

The meeting is adjourned.

[Whereupon, at 11:35 a.m., the Committee was adjourned.]

A P P E N D I X

JULY 23, 2013

Statement by Robert Bonnie, Nominee for Under Secretary of the U.S. Department of Agriculture for Natural Resources and the Environment

Before the U.S. Senate Committee on Agriculture, Nutrition and Forestry

July 23, 2013

Madame Chairman and Members of the Committee, I want to thank you for the opportunity to appear before you today and for your consideration of my nomination to be Under Secretary for Natural Resources and Environment at the US Department of Agriculture. I want to thank President Obama for nominating me to serve in this role and Secretary Vilsack's confidence in me to serve as Under Secretary. If confirmed, I look forward to working with Secretary Vilsack to build upon this Administration's commitment to rural America through the conservation of our working lands and National Forests.

I want to thank my wife, Julie, and my daughter, Lilly, both of whom see a little less of me than they might otherwise as a result of my government service over the last four years. If confirmed, I suspect that won't change and, so, I appreciate their love and patience. I also want to thank my mother, father and brother who have encouraged and supported my career in natural resource conservation.

My commitment to conservation began at an early age. I grew up on a farm in Kentucky and, as a kid, spent a lot of time outside fishing, hunting, and helping out around the farm. We raised both horses and cattle, and grew corn, oats, and hay. My family has also managed forestland in South Carolina for over a century. This land is actively managed for wildlife, recreation and timber production. From these experiences, I understand the challenges associated with managing and maintaining family-owned farms and forests while being good stewards of the land.

Over the last four years, I have had the pleasure of working for Secretary Vilsack as a senior advisor on environment and climate change. USDA has a critical role to play in the conservation of America's natural resources. Our working lands and our National Forests provide significant benefits to the American people, including production of food and fiber, clean water, wildlife habitat, and recreation. Under Secretary Vilsack's leadership, USDA has enrolled record acres in conservation programs demonstrating that given the right incentives, farmers, ranchers and forest landowners are eager to invest in conservation. Partnerships and collaboration are critical. If confirmed as Under Secretary, I will continue to emphasize the importance of partnerships and collaboration with farmers, ranchers, forest owners, conservationists, forest industry, and local communities to conserve our working lands and our forests.

The Natural Resources Conservation Service (NRCS) plays a key role in the conservation of America's working lands. The agency provides financial assistance and technical assistance to farmers, ranchers, and forest owners to conserve soil and water, improve rangeland for cattle and wildlife, and protect habitat to promote outdoor recreation. In a budgetary environment where resources are limited, focusing NRCS resources on important conservation challenges will

remain important. A key mission of NRCS will remain helping landowners put the right practice, or suite of practices, on the right acres.

Under Secretary Vilsack's leadership, NRCS is pioneering new approaches to conservation. For example, Working Lands for Wildlife combines financial and technical assistance with regulatory assurances so that landowners preserve wildlife will also maintaining an economically viable agricultural operation. NRCS's Sage Grouse Initiative has garnered landowner support while demonstrating that voluntary conservation works. And, NRCS's Mississippi River Basin Initiative is working with states and farmers to protect water quality through targeted stewardship activities.

Initiatives like these demonstrate the importance of leveraging additional expertise through partnerships with states, universities, conservation groups, other government agencies and the private sector. Secretary Vilsack has championed tools that provide landowners regulatory certainty in exchange for conservation commitments and environmental markets, and, if confirmed, I will continue his work in developing these initiatives with NRCS, Forest Service, other agencies, States, and landowner partners.

Reauthorization of a comprehensive Food, Farm and Jobs Bill is central to USDA's work, including its conservation successes. This Committee and the US Senate have passed strong, bipartisan legislation to reauthorize farm programs. If confirmed, I will work with Secretary Vilsack to highlight the importance of passing long-term legislation and when such legislation passes, I will work with the Department, NRCS and the Forest Service to implement the legislation in a timely manner.

Like our working lands, America's forests – both public and private – are vital to the economic prosperity of rural America. Forests provide clean water, wildlife habitat, recreational opportunities, and a host of other benefits. But, America's forests face significant threats. On our public lands, catastrophic wildfire, insect outbreaks, and disease threaten our forests, our watersheds, and our communities. On private lands, we are losing forests to urbanization and fragmentation.

For too long, we have fought over the fate of our forests. But now, the threats facing our forests require that we lay down our swords and work together. Secretary Vilsack has called for a shared vision for America's forests that moves us away from the timber wars of the past and towards a shared commitment to restore and manage forests on both public and private lands for the benefit of all Americans.

On our National Forests, this means increasing the pace and scale of restoration and management. If confirmed, I will work with the Secretary and Forest Service Chief Tom Tidwell to treat more acres on National Forests, to produce more timber and biomass, and to improve the ecological health of our forests. There are ample areas where restoration can improve the health of our forests while also providing jobs and economic opportunity.

The most significant challenge facing the Forest Service is catastrophic wildfire. Since the 1970s, average acreages burned have doubled from 3-4 million acres per year to over 7 million

acres per year. These numbers are expected to double again by 2050. Fire seasons are now 60-80 days longer than a few decades ago and fire behavior is more extreme. The combination of a warming climate, increased fuel loads, and housing construction in the wildland-urban interface has increased the loss of lives, homes, watersheds and forests.

The growth in catastrophic fire has had an enormous human toll as we witnessed with the recent loss of 19 members of the Granite Mountain Hot Show Crew in the Yarnell Hill fire in Arizona. Though these firefighters weren't federal employees, they are part of a close-knit firefighting community and the Forest Service and the Department of Interior are deeply saddened by the loss of their colleagues. As with every firefighting fatality, we must ensure that we learn from this incident so that we can prevent future tragedies such as this one. The Forest Service continues to strive to make safety a bedrock value. If confirmed, I will support these efforts and work with Secretary Vilsack and Chief Tidwell to ensure the safety of our firefighters and communities remains paramount.

Both the President and the Secretary have spoken about the substantial budgetary challenges created by the growth of catastrophic wildfires for the Forest Service. Whereas the Forest Service use to spend 10-15% of its budget on fire preparedness and suppression, today it spends closer to 40% or more during bad fire years. Since 1998, Forest Service fire staff has more than doubled, while forestry, biologists, and recreation staff has been reduced over 35%. Budgeting for fire has forced the Forest Service to make difficult budgeting decisions, including reducing funding for management activities that might otherwise prevent catastrophic fires. If confirmed, I look forward to working with the President, the Secretary, this Committee and Congress to address both the budget challenges and the land management challenges presented by catastrophic wildfire.

Our National Forests play a critical role in the economies of local communities by providing opportunities for all types of outdoor recreation, including hunting and fishing, hiking, camping, skiing, motorized sports, canoeing, and many others. The President and the Secretary have underlined the importance of outdoor recreation for local economies and to reconnect Americans to the outdoors through the America's Greater Outdoors initiative. If confirmed, I will continue to work with the Forest Service, NRCS, and other agencies across the federal government to promote outdoor recreation on our public and private lands.

Madam Chairwoman and Members of the Committee, in closing, I want to again thank you for the opportunity to appear before you today. I appreciate the opportunity given to me by the President to work on these important issues. Conservation of our natural resources is closely linked to the prosperity and well-being of rural and urban Americans alike. If confirmed, I look forward to working with President Obama, Secretary Vilsack and this Committee to contribute to the conservation of our working lands and forests. I look forward to answering any questions from the Committee.

Statement by Krysta Harden, Nominee for Deputy Secretary of the U.S. Department of Agriculture

Before the U.S. Senate Committee on Agriculture, Nutrition and Forestry

July 23, 2013

Madam Chairwoman and Members of the Committee, thank you for this opportunity to appear before you as President Obama's nominee to serve as Deputy Secretary of the U.S. Department of Agriculture (USDA). We meet today at a critical time for American agriculture and for the future of rural America. If confirmed, I look forward to helping President Obama and Secretary Vilsack build on the accomplishments of this Administration, and revitalize the rural economy for generations to come.

I want to begin by expressing my appreciation to the President for nominating me to serve in this position, and to Secretary Vilsack for his great leadership of the Department. I'm proud of what we've done together and, if confirmed, I look forward to the work we've yet to accomplish.

As many here today know, I am a product of rural America. When I moved to Washington, I spent nearly a dozen years serving of the citizens of Southwest Georgia as a staff member in the House of Representatives. It's where I learned that public service is a privilege, a responsibility and an exciting opportunity to give back to a nation that has given so much to each of us. And it is where I have made many of my closest friends. While there is not time to thank each of these great friends and colleagues personally, I want to note that there are many who have helped me in my professional life. No one gets to this point in their career without the support of many people – and I believe that it is important always to remember those who have helped you along the way. I want to express my appreciation to all of you for your help, friendship and support.

With me today is my husband of 17 years, Charles Hatcher. There is so much I would like to say to Charles, and about him, but at today's hearing I will simply say that he is my biggest champion, strongest supporter and best friend. Thank you, Charles, for all you have done to make this day possible for me.

I also want to thank my wonderful parents – Jamie and Jimmy Harden – and my sister JaBra Harden Fuller, an educator in Valdosta, Georgia. I am truly blessed with a loving and supportive family.

My family is also a big reason why I committed my life to this work, and why I love what I do. I grew up in Camilla, Georgia, on a diversified farm where my parents carried on a long family history of agriculture. My father grew up raising tobacco, fruits and vegetables. My mother came from a traditional row crop farm, where her family also had a cow/calf operation. Growing up in a farm family – particularly one with such a diverse farming background – gave me an understanding of the strength America enjoys from our ability to grow a wide range of crops and livestock.

I also left Camilla with an appreciation of the challenges we face as a nation to maintain thriving rural communities. When I graduated from the University of Georgia, I did not see how there would be opportunity for me in rural America. This uncertainty led me to move away, even as I maintained a deep appreciation and love for home. Today, years later, we still hear many of those sentiments from young people who are deeply connected to rural America, but who feel they must move away to find opportunity.

That is unfortunate, because anyone who wants a stake in the future of agriculture, or rural America, should be offered a viable chance to do so. Today, we face a challenge to revitalize the

rural economy, and I believe it is a challenge we can meet. We must build new, diverse markets for the incredible productivity of our farmers, ranchers and growers. We must seek out and create new partnerships that leverage the unique strengths of rural areas. And we must make the smart, targeted investments to create thriving Main Street businesses in our small towns.

There is no shortage of folks who are committed to this work, and I am grateful to have had a career full of opportunity in rural policy. As I said, I am very proud to have started my career working on behalf of my home state of Georgia as a staff member in the House of Representatives, and to have then served on the staff of the House Committee on Agriculture. I continued to work closely with farmers, particularly soybean producers, at Gordley Associates here in Washington. I also served for five years supporting the local efforts of conservation leaders as Chief Executive Officer of the National Association of Conservation Districts. My combined experience in those roles taught me that our farmers and ranchers must run a sound business. They must understand science, innovation and mechanics – not to mention have the stamina to work long hours.

Likewise, I believe that we owe agriculture a commitment to sound policy. Over the past three decades, I've witnessed how sound public policy is critical for agriculture. That was why I was deeply honored in 2009 to be nominated by President Obama and confirmed by this body to serve as Assistant Secretary for Congressional Relations at USDA – and to be asked by Secretary Vilsack in 2011 to serve as Chief of Staff for the Department. I would like to share with you some of the work we have accomplished and give you a sense of the wide range of priorities on which I hope to help the Secretary lead, if I am confirmed.

Since 2009 we have helped rural America to stay resilient in the face of the worst economic downturn since the Great Depression, the worst drought in generations, and other disasters that have challenged producers and communities around the country. Meanwhile, we have taken the beginning steps needed to revitalize the rural economy and create jobs across rural America in the long term. Our efforts are borne out in our record results across every area of the Department. Looking ahead, I am hopeful that we can build on our record accomplishments – and while doing so, build up new economic opportunity across the country. Too many in rural America are still left to wonder about their future. Too often, rural communities are not afforded the same infrastructure, capacity and opportunity as other areas. If confirmed, I would hope to play a key role in leading USDA's efforts to revitalize and strengthen the rural economy.

USDA quickly and efficiently implemented programs authorized under the 2008 Farm Bill during my time as Assistant Secretary for Congressional Relations – and over the past three years I have helped implement these programs in both of my roles at the Department. These programs have allowed USDA to provide a record number of farm loans and billions of dollars in disaster assistance to hundreds of thousands of farmers and ranchers. We have provided billions of dollars of crucial economic investment in rural America. We have expanded markets for U.S. exports with new trade agreements across the globe, and today U.S. agriculture remains in its strongest five-year period for exports in our history. USDA has also supported groundbreaking agricultural research as we seek to feed the world by sustainably increasing production.

We can further strengthen production agriculture in the United States, and further expand markets abroad for quality U.S. products. If confirmed, I would work closely with Secretary Vilsack to support our farms and ranches – providing timely help when disaster strikes, ensuring

the availability of farm credit, and expanding agricultural research to help mitigate and adapt to challenges. I also would focus on helping the Secretary, the Administration and Congress in our shared focus on additional international trade agreements, and efforts to break down unfair barriers to trade, that can further expand America's strong agricultural export capacity.

We have enhanced America's conservation efforts alongside farmers and ranchers, with a record number of acres invested in conservation practices across the country and new tools to help producers mitigate risk. Having seen firsthand the commitment of America's farmers, ranchers and landowners to protecting our natural resources during my time leading the NACD, I strongly believe that conservation starts on the farm. I have been pleased to help coordinate these efforts and ensure that USDA is working closely with all stakeholders to enhance the land and water. We are on the cutting edge of conservation and outdoor recreation opportunities today. I believe that we have the potential – and the responsibility – to build on our record conservation achievements. USDA is in a position today to help rural communities and producers lead the way on conservation, protect our natural resources for coming generations, and develop new economic opportunity through increased outdoor activities and modern forest management.

We have supported new opportunities for producers in local and regional markets. Since 2009, we have seen a 67% increase in the number of farmers markets nationwide – and today, there are more than 220 regional food hubs in operation around the country. For example, in my home state of Georgia, you can find local farmers markets like the one in my own hometown. But you can also visit a regional food hub in Atlanta – a larger market designed to help small producers scale up to a broader customer base. Today, a partnership between USDA, the University of Georgia and the Georgia Farm Bureau is working to create even more food hubs.

Local and regional marketing opportunities are growing from coast to coast. Additionally, through efforts such as USDA's *Know Your Farmer, Know Your Food* effort, started by former USDA Deputy Secretary Kathleen Merrigan, the Department is helping to further grow the infrastructure for strong local food systems, while teaching more Americans about the business of agriculture. We have a chance to continue expanding marketing opportunities for those who are growing the ranks of agriculture – young people, immigrants, returning veterans, and more women than ever before. If confirmed, I would look forward to working with the many USDA agencies that have already helped to expand these new opportunities to create further growth.

We can further grow the biobased economy that holds so much potential for rural America. Many of us here today have worked hard over the years to harness the amazing potential of homegrown products – for clean, renewable energy and for feedstock-based manufacturing. Businesses are transitioning to renewable energy sources grown here at home. More than 3,000 American companies are producing thousands of biobased products today. This new biobased economy holds promise to keep people in rural America and send them to work at good jobs. I share Secretary Vilsack's belief that rural America can lead the way to a new age in biobased product creation, and if confirmed, I would help him to make the targeted investments needed to do so.

Finally, I am particularly proud of the work that we accomplished, together with Members of this Committee and many others, to achieve passage of the Healthy, Hunger-Free Kids Act of 2010. This has resulted in more nutritious school meals for more than 32 million children each day. I worked closely with many of you on this important legislation during my time as Assistant Secretary, and as Chief of Staff I have helped to oversee its implementation. Additionally USDA has provided nutrition assistance to millions of Americans – from our smallest towns to our

biggest cities – who work hard, but have trouble providing sufficient food for their families. If confirmed, I look forward to ensuring that USDA is there to help those who need a hand up, especially when it comes to feeding our children, and I would seek to continue our success in ensuring program integrity.

Through all of this work, I have worked to open lines of communication with our partners in Congress and across the country. USDA must recognize the diversity of those we serve and maintain strong partnerships to carry out positive results for the American people. I believe strongly in our system of government and the value of our three separate branches, and in my capacity as Assistant Secretary, I worked hard to be sure that communication between President Obama's USDA and Congress was consistent, concise and straightforward. Our team at USDA must serve as a good partner to everyone we work with across the country – from Governors, to stakeholder organizations, to the farmers, ranchers and families we serve around the country. Each and every person who interacts with the Department is due the best service we can provide.

Along these lines, I share Secretary Vilsack's strong belief that we must continue improving civil rights at USDA. Secretary Vilsack has been clear from day one that discrimination by the Department is not acceptable. In the past four years, we have undertaken the creation of a new era of civil rights at USDA, designed to ensure that we are a modern employer and a 21st-Century service provider. We have taken action to correct an unfortunate past history of discrimination – including reaching historic settlements with African-American, Native American, Hispanic and Women producers who faced discrimination by USDA – and we have improved our outreach and inclusion efforts to be sure that history doesn't repeat itself. Complaints by USDA customers have decreased in each of the last four years, and in FY 2013, the total volume of complaints filed is expected to be less than half the number received in FY

2009. That's good news, but we do not intend to let up. We take this work extremely seriously. If confirmed, I would remain absolutely committed to strengthening civil rights at USDA.

To carry out many of the priorities I have outlined today, USDA relies in large part on the Farm Bill. We remain committed to helping Congress achieve passage of a long-term, comprehensive Agriculture Reform, Food and Jobs Act. I know that this Committee and the full U.S. Senate have worked hard with a strong bipartisan spirit on this legislation. USDA stands ready to implement this legislation once passed by the full Congress, and if confirmed I look forward to leading the implementation effort in a swift and straightforward manner.

I appreciate the unique focus the Deputy Secretary holds related to the USDA budget. During my time as USDA Chief of Staff, we have worked together in a time of tight budgets to identify proactive savings across our Agencies, which in turn have allowed our Department to focus on mission critical priorities. Through USDA's proactive *Blueprint for Stronger Service* effort, we have achieved more than $828 million in cost avoidances that are allowing USDA to continue delivering service to Americans, even with a tighter operating budget. I can pledge to you that if confirmed, I would strive to constantly seek new and innovative operational practices to allow USDA to be mission focused during a challenging budget time.

Madam Chairwoman and Members of the Committee, thank you for this opportunity to appear before you as a nominee to serve as Deputy Secretary of USDA. I hope that I have provided you with some useful insight for why I have devoted my life to agriculture and America's rural communities. I look forward to answering any questions from the Committee.

DOCUMENTS SUBMITTED FOR THE RECORD

JULY 23, 2013

U.S. SENATE COMMITTEE ON AGRICULTURE, NUTRITION & FORESTRY
Questions for Executive Nominees
113th Congress

1. Basic Biographical Information

Please provide the following information.

Position to Which You Have Been Nominated	
Name of Position	**Date of Nomination**
Under Secretary for National Resources and Environment	June 27, 2013

Current Legal Name			
First Name		**Last Name**	**Suffix**
Robert	Farrell	Bonnie	

Addresses					
Residential Address (do not include street address)			**Office Address** (include street address)		
[redacted]			Street: 1400 Independence Ave., SW		
City: Middleburg	State: VA	Zip: 20117	City: Washington	State: DC	Zip: 20250

Other Names Used						
First Name	**Middle Name**	**Last Name**	**Suffix**	Check if Maiden Name	**Name Used From** (Month/Year) (Check box if estimate)	**Name Used To** (Month/Year) (Check box if estimate)
					Est ☐	Est ☐
					Est ☐	Est ☐

Birth Year and Place

Year of Birth (Do not include month and day.)	Place of Birth
1967	Louisville, KY

Marital Status

Check All That Describe Your Current Situation:

Never Married	Married	Separated	Annulled	Divorced	Widowed
☐	X☐	☐	☐	☐	☐

Spouse's Name (current spouse only)

Spouse's First Name	Spouse's Middle Name	Spouse's Last Name	Spouse's Suffix
Julie	Ann	Gomena	

Spouse's Other Names Used (current spouse only)

First Name	Middle Name	Last Name	Suffix	Check if Maiden Name	Name Used From (Month/Year) (Check box if estimate)	Name Used To (Month/Year) (Check box if estimate)
					Est ☐	Est ☐
					Est ☐	Est ☐

Children's Names (if over 18)			
First Name	**Middle Name**	**Last Name**	**Suffix**
Camilla	Clementine	Bonnie	

2. Education

List all post-secondary schools attended.

Name of School	**Type of School** (vocational/technical/trade school, college/university/military college, correspondence/distance/extension/online school)	**Date Began School** (month/year) (check box if estimate)	**Date Ended School** (month/year) (check box if estimate) (check "present" box if still in school)	**Degree**	**Date Awarded**
Harvard College	College	9/1985 Est ☐	6/1989 Est ☐ Present ☐	A.B.	1989
Duke University Nicholas School	University	9/1992 Est ☐	12/1994 Est ☐ Present ☐	M.E.M, M.F.	1994
		Est ☐	Est ☐ Present ☐		
		Est ☐	Est ☐ Present ☐		

3. Employment

(A) List all of your employment activities, including unemployment and self-employment. If the employment activity was military duty, list separate employment activity periods to show each change of military duty station. Do not list employment before your 18th birthday unless to provide a minimum of two years of employment history.

Type of Employment (Active Military Duty Station, National Guard/Reserve, USPHS Commissioned Corps, Other Federal employment, State Government (Non-Federal Employment), Self-employment, Unemployment, Federal Contractor, Non-Government Employment (excluding self-employment), Other	**Name of Your Employer/ Assigned Duty Station**	**Most Recent Position Title/Rank**	**Location** (City and State only)	**Date Employment Began** (month/year) (check box if estimate)	**Date Employment Ended** (month/year) (check box if estimate) (check "present" box if still employed)
Non-government	Scenic America	Acting Policy Director	Washington, DC	3/1990 Est ☐	6/1992 Est ☐
Non-government	Environmental Defense Fund	Vice-President, Land Conservation and Wildlife	Washington, DC	1/1995 Est ☐	4/2009 Est ☐
Other Federal employment	US Department of Agriculture	Senior Advisor to the Secretary	Washington, DC	4/2009 Est ☐	present Est ☐
				Est ☐	Est ☐
				Est ☐	Est ☐

(B) List any advisory, consultative, honorary or other part-time service or positions with federal, state, or local governments, not listed elsewhere.

Name of Government Entity	**Name of Position**	**Date Service Began** (month/year) (check box if estimate)	**Date Service Ended** (month/year) (check box if estimate) (check "present" box if still serving)
		Est ☐	Est ☐ Present ☐
		Est ☐	Est ☐ Present ☐

		Est ☐	Est ☐ Present ☐

4. Honors and Awards

List all scholarships, fellowships, honorary degrees, civilian service citations, military medals, academic or professional honors, honorary society memberships and any other special recognition for outstanding service or achievement.

Duke University Nicholas School of the Environment, Rising Star Alumni Award, 2007

5. Memberships

List all memberships that you have held in professional, social, business, fraternal, scholarly, civic, or charitable organizations in the last 10 years.

Unless relevant to your nomination, you do NOT need to include memberships in charitable organizations available to the public as a result of a tax deductible donation of $1,000 or less, Parent-Teacher Associations or other organizations connected to schools attended by your children, athletic clubs or teams, automobile support organizations (such as AAA), discounts clubs (such as Groupon or Sam's Club), or affinity memberships/consumer clubs (such as frequent flyer memberships).

Name of Organization	Dates of Your Membership (You may approximate.)	Position(s) Held
Society of American Foresters	1994 -- present	Member
Stock Farm Club	2012 -- present	Member

6. Political Activity

(A) Have you ever been a candidate for or been elected or appointed to a political office?
YES.

Name of Office	Elected/Appointed/ Candidate Only	Year(s) Election Held or Appointment Made	Term of Service (if applicable)
Senior Advisor to the Secretary, USDA	Appointed	2009	N/A

(B) List any offices held in or services rendered to a political party or election committee during the last ten years that you have not listed elsewhere.

Name of Party/Election Committee	Office/Services Rendered	Responsibilities	Dates of Service
Obama for President 2008	Volunteer, Energy and Environment Committee, Agriculture Committee	Provide input on policy issues	2007-2008

(C) Itemize all individual political contributions of $200 or more that you have made in the past five years to any individual, campaign organization, political party, political action committee, or similar entity. Please list each individual contribution and not the total amount contributed to the person or entity during the year.

Name of Recipient	Amount	Year of Contribution
Barack Obama	$2,500	2012
Tim Kaine	$2,500	2012
Kentucky State Democratic Central Executive Committee	$2,500	2008
Democratic Party of Virginia	$2,500	2008
William G Shafroth	$1,000	2008
Burton for Loudoun County Board of Supervisors	$2,000	2011
McGimsey for Loudoun County Board of Supervisors	$2,000	2011
Democratic Party, Loudoun VA	$1,500	2011
Baldwin for Loudoun County Board of Supervisors	$800	2011
Stevens Miller for Delegate	$750	2011
David Butler for delegate	$300	2011
Tom Bellanca for Loudoun County Board Chair	$300	2011
John Bell for Delegate	$250	2011
Mike Kondratick for delegate	$250	2011

7. Publications

List the titles, publishers and dates of books, articles, reports or other published materials that you have written, including articles published on the Internet.

Title	Publisher	Date(s) of Publication
Robert Winthrop: lessons from a sporting gentleman. In John Tomke, ed., *Legends, Leaders and Characters of Ducks Unlimited.*	Ducks Unlimited	2012
Chapter 5: Ecological considerations. In Nathaniel Carroll, Jessica Fix and Ricardo Bayon eds., *Conservation and Biodiversity Banking.*	Earthscan	2008
Financing private lands: conservation and management through conservation incentives in the Farm Bill. In James Leavitt ed., *From Walden to Wall Street: Frontiers of Conservation Finance.*	Island Press	2008
Program will give longleaf pine a fighting chance.	Atlanta Journal-Constitution	2006
Feathered Friend	The Pilot (Southern Pines, NC)	2006
From Cone's Folly to Brosnan Forest and beyond: protecting red-cockaded woodpeckers on private lands. In Ralph Costa and Susan J. Daniels eds., *Red-Cockaded Woodpecker: Road to Recovery.*	Hancock House Publishers	2004
Protecting terrestrial ecosystems and the climate through a global carbon market.	Philosophical Transactions, Royal Society of London	2002
Saving forests, earning credits	Environmental Finance	2001
Counting the costs of deforestation	Science	2000
The government's green economic incentives	Washington Times	1999
Bold plan to save rare woodpecker from extinction	Mobile Register	1999
Endangered species mitigation banking: promoting recovery through habitat conservation planning under the Endangered	The Science of the Total Environment, Elsevier	1999

Species Act.		
Safe Harbor foes have ulterior motive.	Dallas Morning News	1998
Safe harbor for the red-cockaded woodpecker	Journal of Forestry	1997
Strategies for conservation of the endangered red-cockaded woodpecker on private lands	Endangered Species Update	1996
Giving animals safe harbor	Washington Times	1996
Habitat trading for red-cockaded woodpeckers: enhancing recovery, reducing conflicts	Endangered Species Update	1996
A market-based approach to conservation of the red-cockaded woodpecker. In Rhett Johnson, ed., *Symposium on the Economics of Wildlife Resources on Private Lands.*	Auburn University	1996

8. Lobbying

In the past ten years, have you registered as a lobbyist? If so, please indicate the state, federal, or local bodies with which you have registered (e.g., House, Senate, California Secretary of State).

Yes. I was registered as a federal lobbyist in 2007.

United States
Office of Government Ethics
1201 New York Avenue, NW, Suite 500
Washington, DC 20005-3917

JUL - 3 2013

The Honorable Debbie Stabenow
Chairwoman
Committee on Agriculture, Nutrition,
and Forestry
United States Senate
Washington, DC 20510

Dear Madam Chairwoman:

In accordance with the Ethics in Government Act of 1978, I enclose a copy of the financial disclosure report filed by Robert F. Bonnie, who has been nominated by President Obama for the position of Under Secretary for Natural Resources and Environment, Department of Agriculture.

We have reviewed the report and have obtained advice from the agency concerning any possible conflict in light of its functions and the nominee's proposed duties. Also enclosed is an ethics agreement outlining the actions that the nominee will undertake to avoid conflicts of interest. Unless a date for compliance is indicated in the ethics agreement, the nominee must fully comply within three months of confirmation with any action specified in the ethics agreement.

Based thereon, we believe that this nominee is in compliance with applicable laws and regulations governing conflicts of interest.

Sincerely,

Jane S. Ley
Deputy Director

Enclosures

June 28, 2013

Mr. Stuart Bender
Designated Agency Ethics Official and
Director, Office of Ethics
U.S. Department of Agriculture
Washington, DC 20250-0122

Dear Mr. Bender:

The purpose of this letter is to describe the steps that I will take to avoid any actual or apparent conflict of interest in the event that I am confirmed for the position of Under Secretary for Natural Resources and Environment, U.S. Department of Agriculture (USDA).

As required by 18 U.S.C. § 208(a), I will not participate personally and substantially in any particular matter that has a direct and predictable effect on my financial interests or those of any other person whose interests are imputed to me, unless I first obtain a written waiver, pursuant to section 208(b)(1), or qualify for a regulatory exemption, pursuant to section 208(b)(2). I further understand that the interests of the following persons are imputed to me: any spouse or minor child of mine, any general partner of a partnership in which I am a limited or general partner; any organization in which I serve as officer, director, trustee, general partner, or employee; and any person or organization with which I am negotiating or have an arrangement concerning prospective employment.

I will divest my holdings in the entities listed in Attachment A within 90 days of my confirmation. With regard to each of these entities, I will not participate personally and substantially in any particular matter that has a direct and predictable effect on the financial interests of the entity until I have divested it, unless I first obtain a written waiver, pursuant to 18 U.S.C. § 208(b)(1), or qualify for a regulatory exemption, pursuant to 18 U.S.C. § 208(b)(2).

I have disclosed in my financial disclosure report a financial interest in the investment funds listed in Attachment B. However, I have not been able to obtain from the funds' managers sufficient information to enable me to disclose the funds' underlying assets in my financial disclosure report. Therefore, I will divest my financial interest in all of these funds listed in Attachment B within 90 days of my confirmation. Until I have divested each of these funds, I will not participate personally and substantially in any particular matter in which to my knowledge I have a financial interest, if the particular matter has a direct and predictable effect on the financial interests of the fund or its underlying assets, unless I first obtain a written waiver, pursuant to 18 U.S.C. § 208(b)(1), or qualify for a regulatory exemption, pursuant to 18 U.S.C. § 208(b)(2).

I understand that I may be eligible to request a Certificate of Divestiture for the assets listed in Attachment A and Attachment B and that a Certificate of Divestiture is effective only if obtained prior to divestiture. Regardless of whether I receive a Certificate of Divestiture, I will divest

these assets within 90 days of my confirmation and will invest the proceeds in non-conflicting assets.

If I rely on a *de minimis* exemption under 5 C.F.R. § 2640.202 with regard to any of my financial interests, I will monitor the value of those interests. If the aggregate value of interests affected by a particular matter increases and exceeds the *de minimis* threshold, I will not participate in the particular matter, unless I first obtain a written waiver under 18 U.S.C. § 208(b)(1).

Upon confirmation, I will resign from my positions with the entities listed in Attachment C. For a period of one year after my resignation from each of these entities, I will not participate personally and substantially in any particular matter involving specific parties in which that entity is a party or represents a party, unless I am first authorized to participate, pursuant to 5 C.F.R. § 2635.502(d).

I understand that as an appointee I must continue to abide by the Ethics Pledge (Exec. Order No. 13490) that I previously signed and that I will be bound by the requirements and restrictions therein in addition to the commitments I have made in this and any other ethics agreement.

Finally, I have been advised that this ethics agreement will be posted publicly, consistent with 5 U.S.C. §552, on the website of the U.S. Office of Government Ethics with other ethics agreements of Presidential nominees who file public financial disclosure reports.

Sincerely,

Robert F. Bonnie

ATTACHMENT A: ASSETS

- Procter & Gamble
- British Petroleum – BP Plc.
- Chevron Corporation
- Exxon Mobil Corporation
- Royal Dutch Shell Plc.
- General Electric
- Cisco Systems
- Microsoft Corporation

ATTACHMENT B: INVESTMENT FUNDS

- Arcus Ventures LP
- Blue Ridge LP
- Blue Ridge China Partners LP
- Blue Ridge China Partners II LP
- Glenville Capital Partners LP
- New River Management V LP
- NGP Energy Partners LP
- Pivot Point Capital LP
- Steadfast Capital LP
- Strategos Fund LP
- JP Morgan Partners Global Investors LP

ATTACHMENT C: POSITIONS

- Piedmont Fox Hounds
- The Bonnie Family Foundation
- Bonnie Management Company
- Merlin Investments LLC
- Edward S. Bonnie Trust
- 12/20/68 Trust b/o Shelby Bonnie

OGE Form 278 (Rev. 12/2011)
5 C.F.R. Part 2634
U.S. Office of Government Ethics

Executive Branch Personnel PUBLIC FINANCIAL DISCLOSURE REPORT

Form Approved:
OMB No. 3209 - 0001

Date of Appointment, Candidacy, Election, or Nomination *(Month, Day, Year)* 06/27/2013	Reporting Status (Check Appropriate Boxes)	Incumbent ☐	Calendar Year Covered by Report	New Entrant, Nominee, or Candidate ☒	Termination Filer ☐ Termination Date *(If Applicable) (Month, Day, Year)*
Reporting Individual's Name	Last Name Bonnie			First Name and Middle Initial Robert F	
Position for Which Filing	Title of Position Under Secretary for Natural Resources and Environment			Department or Agency *(If Applicable)* U.S. Department of Agriculture	
Location of Present Office (or forwarding address)	Address *(Number, Street, City, State, and ZIP Code)* 1400 Independence Avenue, S.W., Washington, D.C. 20250			Telephone No. *(Include Area Code)* 202-720-3631	
Position(s) Held with the Federal Government During the Preceding 12 Months *(If Not Same as Above)*	Title of Position(s) and Date(s) Held Senior Advisor to the Secretary for Environment and Climate, U.S. Department of Agriculture, 4/29/09 - Present				
Presidential Nominees Subject to Senate Confirmation	Name of Congressional Committee Considering Nomination Committee on Agriculture, Nutrition and Forestry			Do You Intend to Create a Qualified Diversified Trust? ☐ Yes ☒ No	
Certification I CERTIFY that the statements I have made on this form and all attached schedules are true, complete and correct to the best of my knowledge.	Signature of Reporting Individual Robert Bonnie			Date *(Month, Day, Year)* 6/28/13	
Other Review (If desired by agency)	Signature of Other Reviewer			Date *(Month, Day, Year)*	
Agency Ethics Official's Opinion On the basis of information contained in this report, I conclude that the filer is in compliance with applicable laws and regulations (subject to any comments in the box below).	Signature of Designated Agency Ethics Official/Reviewing Official Stan B DAEO			Date *(Month, Day, Year)* 6/28/2013	
Office of Government Ethics Use Only	Signature Jane S. Ley			Date *(Month, Day, Year)* 7/3/13	

Comments of Reviewing Officials *(If additional space is required, use the reverse side of this sheet)*

(Check box if filing extension granted & indicate number of days _____) ☐

(Check box if comments are continued on the reverse side) ☐

Fee for Late Filing
Any individual who is required to file this report and does so more than 30 days after the date the report is required to be filed, or, if an extension is granted, more than 30 days after the last day of the filing extension period, shall be subject to a $200 fee.

Reporting Periods
Incumbents: The reporting period is the preceding calendar year except Part II of Schedule C and Part I of Schedule D where you must also include the filing year up to the date you file. Part II of Schedule D is not applicable.

Termination Filers: The reporting period begins at the end of the period covered by your previous filing and ends at the date of termination. Part II of Schedule D is not applicable.

Nominees, New Entrants and Candidates for President and Vice President:

Schedule A--The reporting period for income (BLOCK C) is the preceding calendar year and the current calendar year up to the date of filing. Value assets as of any date you choose that is within 31 days of the date of filing.

Schedule B--Not applicable.

Schedule C, Part I (Liabilities)--The reporting period is the preceding calendar year and the current calendar year up to any date you choose that is within 31 days of the date of filing.

Schedule C, Part II (Agreements or Arrangements)--Show any agreements or arrangements as of the date of filing.

Schedule D--The reporting period is the preceding **two** calendar years and the current calendar year up to the date of filing.

Agency Use Only
Rec'd June 28, 2013

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Supersedes Prior Editions.

OGE Form 278 (Rev. 12/2011)
5 C.F.R. Part 2634
U.S. Office of Government Ethics

Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A

Page Number 1

Assets and Income — BLOCK A

For you, your spouse, and dependent children, report each asset held for investment or the production of income which had a fair market value exceeding $1,000 at the close of the reporting period, or which generated more than $200 in income during the reporting period, together with such income.

For yourself, also report the source and actual amount of earned income exceeding $200 (other than from the U.S. Government). For your spouse, report the source but not the amount of earned income of more than $1,000 (except report the actual amount of any honoraria over $200 of your spouse).

None ☐

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
Examples	Central Airlines Common				x												x						x										
	Doe Jones & Smith, Hometown, State			x																												Law Partnership Income $130,000	
	Kempstone Equity Fund					x								x										x									
	IRA: Heartland 500 Index Fund							x						x											x								
1	(Stock) -- Groton Land Company, Inc. - Real Estate Athens, GA									X											X												
2	(Stock) -- Bonnie Management Co., Inc - Financial Services Keswick, VA			X																	X												
3	(S) (Cash Deposit/Savings) Middleburg Bank Middleburg, VA, US Checking			X															X				X										
4	(Cash Deposit/Savings) PNC Bank Washington, DC, US Checking		X																X		X												
5	(Mutual Fund) EGFIX Edgewood Growth Fund Instl				X									X							X												
6	(Mutual Fund) HLIEX JP Morgan Equity Income Fund Select					X								X										X									

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	(Mutual Fund) SEEGX JP Morgan Large Cap Growth Fund Select					X								X								X											
2	(Mutual Fund) JLPSX JP Morgan US Large Cap Core Plus Select					X								X											X								
3	(Mutual Fund) NMULX Neuberger Berman Multi-Cap Opportunities Fund In					X								X										X									
4	(Mutual Fund) POSKX Primecap Odyssey Stock Fund					X								X									X										
5	(Mutual Fund) DODFX Dodge Cox International Stock Fund			X										X									X										
6	(Mutual Fund) EXWAX Manning & Napier Fd Inc.World Opportunities Srs			X										X									X										
7	(Mutual Fund) MIPTX Matthews Pacific Tiger Fund Ins			X										X								X											
8	(Mutual Fund) HDCSX Highbridge Dynamic Commodities Strategy Fund - S			X										X							X												
9	(Mutual Fund) -- JP Morgan Strategic Income Opportunity Fund			X										X								X											

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	(Mutual Fund) -- Eaton Vance Floating Rate I				X									X										X									
2	(Mutual Fund) -- JP Morgan High Yield Fund			X										X									X										
3	(Mutual Fund) -- JP Morgan Tr.I Tax Aware Real Return Fund			X										X								X											
4	(Mutual Fund) -- JP Morgan Short Term Inter. Muni Bond Fund				X									X								X											
5	(Mutual Fund) -- Blackrock High Yield Bond Fund			X										X										X									
6	(Mutual Fund) -- JP Morgan International Currency Income Fund			X										X							X												
7	(Mutual Fund) -- Dreyfus Laurel Emerging Market Debt Fund			X										X								X											
8	(Mutual Fund) -- JP Morgan Money Market Fund			X										X							X												
9	(DC) (Mutual Fund) ITHIX The Hartford Capital Appreciation Fund Class I				X									X								X											

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	(DC) (Mutual Fund) HLIEX JP Morgan Equity Income Fund Select		X											X								X											
2	(DC) (Mutual Fund) SEEGX JP Morgan Large Cap Growth Fund Select			X										X							X												
3	(DC) (Mutual Fund) JLPSX JP Morgan US Large Cap Core Plus Select				X									X								X											
4	(DC) (Mutual Fund) SDVGX Sit Dividend Growth Fund				X									X									X										
5	(DC) (Mutual Fund) DODFX Dodge Cox International Stock Fund		X											X								X											
6	(DC) (Mutual Fund) EXWAX Manning & Napier Fd Inc.World Opportunities Srs		X											X								X											
7	(DC) (Mutual Fund) MIPTX Matthews Pacific Tiger Fund Ins		X											X							X												
8	(DC) (Mutual Fund) -- JP Morgan Money Market Fund			X										X							X												
9	(DC) (Mutual Fund) -- JP Morgan Strategic Income Opportunity Fund		X											X							X												

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	(DC) (Mutual Fund) -- Eaton Vance Floating Rate I Fund		X											X								X											
2	(DC) (Mutual Fund) -- JP Morgan High Yield Fund Select		X											X								X											
3	(DC) (Mutual Fund) -- JP Morgan Short Duration Bond Fund		X											X							X												
4	(DC) (Mutual Fund) -- JP Morgan International Currency Fund		X											X							X												
5	(DC) (Mutual Fund) -- Dreyfus Laurel Emerging Market Debt		X											X							X												
6	(ETF) SPDR S&P 500 ETF Trust					X								X									X										
7	(ETF) I Shares Core S&P Mid Cap ETF					X								X									X										
8	(ETF) Vanguard MSCI Europe ETF			X										X									X										
9	(ETF) Vanguard MSCI Emerging Markets ETF			X										X								X											

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income (BLOCK A)	Valuation of Assets at close of reporting period (BLOCK B)															Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. (BLOCK C)														
																Type				Amount										
	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Dividends	Rent and Royalties	Interest	Capital Gains	None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1 (DC) (ETF) I Shares Russell 1000 Value Index		X											X								X										
2 (DC) (ETF) SPDR S&P 500 ETF Trust			X										X								X										
3 (DC) (ETF) IShares Core S&P Mid Cap ETF			X										X								X										
4 (DC) (ETF) Vanguard MSCI Emerging Markets ETF		X											X							X											
5 (DC) (ETF) Vanguard MSCI Europe ETF		X											X							X											
6 (Other) Blake Land LLC - Undeveloped Land Hampton Cty, SC					X												X			X											
7 (Other) Summary Holding Co. LLC - Undeveloped Land Loudoun Cty, VA			X														X			X											
8 (J) (Other) Stonelea Stable LLC - Horse Racing Goshen, KY		X																		X											
9 (Other) Blue Ridge LP - Hedge Fund New York, NY - see comment									X							X		X	X								X				

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	(Other) Bonnie Rye Stables LLC - Horse Racing Middleburg, VA			X																	X												
2	(Other) Bermaun Braun Interactive LLC Online Media Santa Monica, CA						X														X												
3	(S) (Other) Over Creek Stables Horse Training Middleburg, VA				X																X												
4	(S) (Other) Bon Nouvell Chasers LLC Horse Racing Middleburg, VA		X																		X												
5	(DC) (Trust) TIAA-CREF Tuition Financing, Inc.																																
6	+--- (Other) ScholarShare Age Based Portfolio- 529 Plan					X								X												X							
7	(Trust) Citibank, NA																																
8	+--- (Mutual Fund) ---Citibank Money Market Fund					X								X							X												
9	+--- (Other) Vanguard Total Stock Market ETF									X				X													X						

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Other) Vanguard MSCE EAFE ETF									X				X											X								
2	+--- (Other) Vanguard MSCI Emerging Market ETF						X							X										X									
3	+--- (Other) SPDR Nuveen Barclays Short Term ETF				X									X									X										
4	+--- (Mutual Fund) VWEHX-Vanguard High Yield Corporate Fund			X										X									X										
5	+--- (Other) Vanguard Inter.Term Bond ETF					X								X										X									
6	(Trust) Deutsche Bank																																
7	+--- (Stock) CMCSK-Comcast Corp.			X													X					X											
8	+--- (Mutual Fund) ---Deutsche Bank Money Market Fund							X						X								X											
9	+--- (Stock) TGT-Target Corp.				X												X						X										

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Stock) AVP-Avon Products		X														X					X											
2	+--- (Stock) CVS-Cvs Corp.				X												X						X										
3	+--- (Stock) GIS-General Mills			X													X						X										
4	+--- (Stock) PEP-Pepsico			X													X					X											
5	+--- (Stock) PG-Procter & Gamble Company			X													X						X										
6	+--- (Stock) BP-Bp P.L.C.					X											X								X								
7	+--- (Stock) CVX-Chevron Corp.			X													X					X											
8	+--- (Stock) XOM-Exxon Mobil Corp.							X									X								X								
9	+--- (Stock) RDS.A-Royal Dutch Shell Plc				X												X							X									

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Stock) BAC-Bank Of America Corp.		X														X				X												
2	+--- (Stock) CB-Chubb Corp.			X													X					X											
3	+--- (Stock) C-Citigroup Inc.		X														X				X												
4	+--- (Stock) HIG-Hartford Financial Services Group		X														X				X												
5	+--- (Stock) JPM-J P Morgan Chase & Co			X													X					X											
6	+--- (Stock) ABT-Abbott Laboratories			X													X						X										
7	+--- (Stock) AMGN-Amgen Inc.			X													X					X											
8	+--- (Stock) CAH-Cardinal Health		X														X				X												
9	+--- (Stock) CFN-Carefusion Corp.		X														X				X												

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Stock) JNJ-Johnson & Johnson					X											X								X								
2	+--- (Stock) HSP-Hospira Inc		X														X				X												
3	+--- (Stock) MDT-Medtronic		X														X					X											
4	+--- (Stock) ZMH-Zimmer Holdings		X														X				X												
5	+--- (Stock) FDX-Fedex Corp.			X													X				X												
6	+--- (Stock) GD-General Dynamics Corp.			X													X					X											
7	+--- (Stock) GE-General Electric Company				X												X						X										
8	+--- (Stock) RPXC-Rpx Corporation						X										X				X												
9	+--- (Stock) UTX-United Technologies Corp.							X									X									X							

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Stock) ADP-Automatic Data Processing			X													X						X										
2	+--- (Stock) BR-Broadridge Financial Solutions Llc		X														X				X												
3	+--- (Stock) CSCO-Cisco Systems			X													X					X											
4	+--- (Stock) GLW-Corning Inc.			X													X					X											
5	+--- (Stock) MSFT-Microsoft Corp.			X													X						X										
6	+--- (Stock) SYMC-Symantec Corp.		X														X				X												
7	+--- (Stock) TXN-Texas Instruments Inc.			X													X					X											
8	+--- (Stock) PPG-Ppg Industries			X													X					X											
9	+--- (Stock) EFA-MSCI Eafe									X				X											X							

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Stock) IWM-Russell 2000 ETF							X						X											X								
2	+--- (Stock) IWR-Russell Midcap ETF									X				X											X								
3	+--- (Stock) VWO-MSCI Emerging Markets									X				X											X								
4	+--- (Stock) SPY-S&P 500 Trust										X			X													X						
5	+--- (Stock) TIP-Barclays Tips Bond Fund									X				X											X								
6	+--- (Mutual Fund) VIPSX-Vanguard Inflation Protected Securities Fund									X				X												X							
7	+--- (Stock) DJP-DJ-UBS Commodity Index Tr Etn						X							X							X												
8	(DC) (Trust) JP Morgan Chase Bank NA																																
9	+--- (Mutual Fund) ---Jpmorgan Money Market Fund					X								X							X												

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Stock) RPXC-Rpx Corporation		X														X				X												
2	+--- (Mutual Fund) JXGSX-Jpmorgan Access Growth - Select					X								X											X								
3	+--- (Stock) SPY-S&P 500 Trust			X										X							X												
4	+--- (Stock) IWR-Russell Midcap ETF		X											X							X												
5	+--- (Stock) IWM-Russell 2000 ETF		X											X							X												
6	+--- (Stock) EFA-MSCI Eafe		X											X							X												
7	+--- (Stock) AAXJ-MSCI All Country Asia Ex Japan		X											X							X												
8	(Trust) Lazard Capital Markets LLC New York, NY																																
9	+--- (Stock) IJR-S&P Smallcap 600				X									X								X											

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Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Stock) IJH-S&P Midcap 400				X									X								X											
2	+--- (Stock) IVV-S&P 500					X								X										X									
3	+--- (Stock) IEV-S&P Europe 350			X										X									X										
4	+--- (Stock) EWC-MSCI Canada			X										X								X											
5	+--- (Stock) SHM-Barclays S/T Muni Bd						X							X										X									
6	+--- (Stock) VWO-MSCI Emerging Markets				X									X									X										
7	+--- (Stock) VPL-MSCI Pacific				X									X									X										
8	+--- (Stock) VGK-MSCI European			X										X								X											
9	+--- (Stock) VCSH-Vg Short-Term ETF					X								X										X									

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SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Mutual Fund) LCAIX-Lazard Capital Allocator Srs Opportunistic Strat						X							X										X									
2	+--- (Mutual Fund) ---JP Morgan tax free money market fund		X											X							X												
3	(J) (Other Investment Vehicle) Merlin Investments LLC - Investments Keswick, VA																																
4	+--- (Mutual Fund) ---JP Morgan Money Market Fund					X								X							X												
5	+--- (Stock) RPXC-Rpx Corporation		X																		X												
6	+--- (Stock) ---Health Central Network Online Media Arlington, VA		X																		X												
7	+--- (Other) Undeveloped Land - Loudoun Cty, VA									X											X												
8	+--- (Other) Arcus Ventures LP Private Equity New York, NY - see comment					X															X												
9	+--- (Other) Artscape LLP Art Education Lake Mary, FL				X																X												

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SCHEDULE A continued
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Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Other) Blue Ridge LP - Hedge Fund New York, NY - see comment										X						X			X									X				
2	+--- (Other) Blue Ridge China Partners LP Private Equity New York, NY - see comment						X														X												
3	+--- (Other) Blue Ridge China Partners II LP Private Equity New York, NY - see comment					X															X												
4	+--- (Other) Glenville Capital Partners LP Hedge Fund Greenwich, CT - see comment									X							X			X								X					
5	+--- (Other) New River Management V LP Private Equity Radford, VA - see comment					X											X			X					X								
6	+--- (Other) NGP Energy Partners LP Private Equity Washington, DC - see comment					X															X												
7	+--- (Other) Pivot Point Capital LP Hedge Fund San Francisco, CA - see comment					X											X			X						X							
8	+--- (Other) Steadfast Capital LP Hedge Fund New York, NY - see comment							X									X			X							X						
9	+--- (Other) Strategos Fund LP Hedge Fund New York, NY - see comment									X							X			X								X					

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SCHEDULE A continued
(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	+--- (Other) JP Morgan Partners Global Investors LP Private Equity New York, NY - see comment				X																X												
2	(Other Investment Vehicle) Environmental Defense Fund 403(b)-Lincoln Financial Advisors																																
3	+--- (Mutual Fund) RTRIX-Royce Total Return Fund Insti Class			X										X									X										
4	+--- (Mutual Fund) BGRFX-Baron Growth Fund			X										X										X									
5	+--- (Mutual Fund) AMPBX-Amcap Fund Class B Shares				X									X									X										
6	+--- (Mutual Fund) BTIEX-Dws Insti Fds Dws Equity 500 Index Fd Class S				X									X								X											
7																																	
8																																	
9																																	

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Do not complete Schedule B if you are a new entrant, nominee, or Vice Presidential or Presidential Candidate

Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE B

Part I: Transactions

Report any purchase, sale, or exchange by you, your spouse, or dependent children during the reporting period of any real property, stocks, bonds, commodity futures, and other securities when the amount of the transaction exceeded $1,000. Include transactions that resulted in a loss.

Do not report a transaction involving property used solely as your personal residence, or a transaction solely between you, your spouse, or dependent child. Check the "Certificate of divestiture" block to indicate sales made pursuant to a certificate of divestiture from OGE.

None ☐

	Identification of Assets	Transaction Type (x): Purchase	Sale	Exchange	Date (Mo., Day, Yr.)	Amount of Transaction (x): $1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Certificate of divestiture
Example	Central Airlines Common	x			2/1/99			x									
1																	
2																	
3																	
4																	
5																	

*This category applies only if the underlying asset is solely that of the filer's spouse or dependent children. If the underlying asset is either held by the filer or jointly held by the filer with the spouse or dependent children, use the other higher categories of value, as appropriate.

Part II: Gifts, Reimbursements, and Travel Expenses

For you, your spouse and dependent children, report the source, a brief description, and the value of: (1) gifts (such as tangible items, transportation, lodging, food, or entertainment) received from one source totaling more than $350 and (2) travel-related cash reimbursements received from one source totaling more than $350. For conflicts analysis, it is helpful to indicate a basis for receipt, such as personal friend, agency approval under 5 U.S.C. § 4111 or other statutory authority, etc. For travel-related gifts and reimbursements, include travel itinerary, dates, and the nature of expenses provided. **Exclude** anything given to you by the U.S. Government; given to your agency in connection with official travel; received from relatives; received by your spouse or dependent child totally independent of their relationship to you; or provided as personal hospitality at the donor's residence. Also, for purposes of aggregating gifts to determine the total value from one source, exclude items worth $140 or less. See instructions for other exclusions.

None ☐

	Source (Name and Address)	Brief Description	Value
Examples	Nat'l Assn. of Rock Collectors, NY, NY	Airline ticket, hotel room & meals incident to national conference 6/15/99 (personal activity unrelated to duty)	$500
	Frank Jones, San Francisco, CA	Leather briefcase (personal friend)	$385
1			
2			
3			
4			
5			

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SCHEDULE C

Page Number 20

Part I: Liabilities

Report liabilities over $10,000 owed to any one creditor at **any time** during the reporting period by you, your spouse, or dependent children. Check the highest amount owed during the reporting period. **Exclude** a mortgage on your personal residence unless it is rented out; loans secured by automobiles, household furniture or appliances; and liabilities owed to certain relatives listed in instructions. See instructions for revolving charge accounts.

None ☐

	Creditors (Name and Address)	Type of Liability	Date Incurred	Interest Rate	Term if applicable	$10,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000
Examples	First District Bank, Washington, DC	Mortgage on rental property, Delaware	1991	8%	25 yrs.			x								
	John Jones, Washington, DC	Promissory note	1999	10%	on demand					x						
1	Groton Land Company Inc. Athens, GA, US	Mortgage	2010	5.0	15						X					
2																
3																
4																
5																

*This category applies only if the liability is solely that of the filer's spouse or dependent children. If the liability is that of the filer or a joint liability of the filer with the spouse or dependent children, mark the other higher categories, as appropriate.

Part II: Agreements or Arrangements

Report your agreements or arrangements for: (1) continuing participation in an employee benefit plan (e.g. pension, 401k, deferred compensation); (2) continuation of payment by a former employer (including severance payments); (3) leaves of absence; and (4) future employment. See instructions regarding the reporting of negotiations for any of these arrangements or benefits.

None ☐

	Status and Terms of any Agreement or Arrangement	Parties	Date
Example	Pursuant to partnership agreement, will receive lump sum payment of capital account & partnership share calculated on service performed through 1/00.	Doe Jones & Smith, Hometown, State	7/85
1	403(b) retirement plan retained with my former employer. No continuing contributions.	Environmental Defense Fund New York, NY, US	01/1995
2			
3			
4			
5			
6			

Reporting Individual's Name: BONNIE ROBERT F

SCHEDULE D

Part I: Positions Held Outside U.S. Government

Report any positions held during the applicable reporting period, whether compensated or not. Positions include but are not limited to those of an officer, director, trustee, general partner, proprietor, representative, employee, or consultant of any corporation, firm, partnership, or other business enterprise or any non-profit organization or educational institution. **Exclude** positions with religious, social, fraternal, or political entities and those solely of an honorary nature.

None ☐

	Organization *(Name and Address)*	Type of Organization	Position Held	From *(Mo., Yr.)*	To *(Mo., Yr.)*
Examples	Nat'l Assn. of Rock Collectors, NY, NY	Non-profit education	President	6/92	Present
	Doe Jones & Smith, Hometown, State	Law Firm	Partner	7/85	1/00
1	Piedmont Fox Hounds Middleburg, VA, US	Fox Hunting Club	President	06/01/2006	Present
2	The Bonnie Family Foundation Keswick, VA, US	Private Foundation	Director	08/01/2000	Present
3	Bonnie Management Company, Inc Keswick, VA, US	Family Office	Vice President	09/01/2000	Present
4	Edward S. Bonnie Trust Keswick, VA, US	Trust	Trustee	06/01/2002	Present
5	Merlin Investments LLC Keswick, VA, US	Family Investment LLC	Vice President	01/01/2003	Present
6	12/20/68 Trust b/o Shelby Bonnie Keswick, VA, US	Trust	Trustee	01/01/2002	Present

Part II: Compensation in Excess of $5,000 Paid by One Source

Do not complete this part if you are an Incumbent, Termination Filer, or Vice Presidential or Presidential Candidate.

Report sources of more than $5,000 compensation received by you or your business affiliation for services provided directly by you during any one year of the reporting period. This includes the names of clients and customers of any corporation, firm, partnership, or other business enterprise, or any other non-profit organization when you directly provided the services generating a fee or payment of more than $5,000. You need not report the U.S. Government as a source.

None ☒

	Source *(Name and Address)*	Brief Description of Duties
Examples	Doe Jones & Smith, Hometown, State	Legal services
	Metro University (client of Doe Jones & Smith), Moneytown, State	Legal services in connection with university construction
1		
2		
3		
4		
5		
6		

Filer Comments
for ROBERT BONNIE

Asset: Blue Ridge LP - Hedge Fund New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Asset: Merlin Investments LLC - Investments Keswick, VA
Comment: Business/Real Estate Investments

Invested: Arcus Ventures LP Private Equity New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: Blue Ridge LP - Hedge Fund New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: Blue Ridge China Partners LP Private Equity New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: Blue Ridge China Partners II LP Private Equity New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: Glenville Capital Partners LP Hedge Fund Greenwich, CT - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: New River Management V LP Private Equity Radford, VA - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: NGP Energy Partners LP Private Equity Washington, DC - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: Pivot Point Capital LP Hedge Fund San Francisco, CA - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: Steadfast Capital LP Hedge Fund New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: Strategos Fund LP Hedge Fund New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

Invested: JP Morgan Partners Global Investors LP Private Equity New York, NY - see comment
Comment: Underlying assets are not disclosed because the fund does not disclose its underlying assets to investors. I will divest this asset if confirmed.

July 24, 2013

The Honorable Debbie Stabenow
Chairwoman
Senate Committee of Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
Washington, DC, 20510

Dear Madam Chairwoman:

On June 28, 2013, a copy of my SF-278, Executive Branch Public Financial Disclosure Report, required in connection with my nomination to serve as Under Secretary for Natural Resources and Environment at the United States Department of Agriculture was submitted to the U.S. Office of Government Ethics. That report contained all required financial information.

The Ethics in Government Act of 1978, as amended, also requires that I update certain amount of the information reported on the SF-278, i.e., that required by section 102(a)(1)(A) of the Act, respecting income (other than dividends, interest, rents, and capital gains) and honoraria. The purpose of this letter is to report that since I filed that Financial Disclosure Report there were changes in value to certain assets listed on Schedule A of that report. Per the Committee's request, please find attached a detailed listing of those changes.

I trust that this letter satisfies the additional applicable reporting requirements contained in the Ethics in Government Act. I ask this letter be included in my confidential file with the Committee.

Sincerely,

Robert F. Bonnie

attachment

Robert F. Bonnie
OGE Form 278, Submitted June 28, 2013
Changes in value to Assets Listed on Schedule A

Block A

Page 1:	Original Block B Value	Block B Value July 23, 2013
Mutual Fund- JP Morgan Equity Income Fund	100,001 - 250,000	50,001 - 100,000
(S)Cash Deposit-Savings- Middleburg Bank, Middleburg, VA	15,001-50,000	100,000 - 250,000
Page 2:		
Mutual Fund- JP Morgan Large Cap Growth Fund	100,001 - 250,000	50,001 - 100,000
Mutual Fund Manning & Napier World Opp.Fund	15,001-50,000	50,001- 100,000
Highbridge Dynamic Commodities Strategy	15,001-50,000	None or less than 1,001
Page 3:		
Mutual Fund: JP Morgan High Yield Fund	15,001-50,000	None or less than 1,001
Mutual Fund: JP Morgan Currency Income Fund	15,001-50,000	None or less than 1,001
Mutual Fund: Dreyfus Laurel Emerging Mkts Debt Fund	15,001-50,000	50,001- 100,000
Mutual Fund: JP Morgan Money Market Fund	15,001-50,000	50,001 - 100,000
Page 4:		
(DC)Mutual Fund: JP Morgan Equity Income Fund	1,001 - 15,000	15,001 - 50,000
(DC) Mutual Fund: JP Morgan Money Market Fund	15,001 - 50,000	1,001 - 15,000
Page 5:		
(DC) Mutual Fund: JP Morgan Short Duration Bond Fund	1,001 - 15,000	None or less than 1,001
(DC) Mutual Fund: JP Morgan Internation Currency Fund	1,001 - 15,000	None or less than 1,001
ETF Vanguard MSCI Emerging Markets ETF	15,001-50,000	None or less than 1,001
Page 6:		
(DC) ETF I Shares Russell 1000 Value Index	1,001 - 15,000	None or less than 1,001
(DC) ETF iShares Core S&P Midcap ETF	15,001-50,000	50,001 - 100,000
(DC) ETF Vanguard MSCI Emerging Markets ETF	1,001 - 15,000	None or less than 1,001
Page 8:		
ETF Vanguard MSCE EAFE ETF	1,000,000- 5,000,000	500,001-1,000,000
ETF Vanguard Interm. Term Bond ETF	100,001 - 250,000	50,001 - 100,000
Mutual Fund- DeutscheBank Money Market Fund	500,001-1,000,000	1,000,000- 5,000,000
Page 11:		
(Stock) JNJ Johnson & Johnson	100,001 - 250,000	250,001 - 500,000
(Stock) MDT- Medtronic	1,001 - 15,000	15,001 - 50,000
(Stock) ZMH- Zimmer Holdings	1,001 - 15,000	15,001 - 50,000
(Stock) RPXC- RPX Corportation	250,001 - 500,000	500,001-1,000,000
(Stock) UTX- United Technologies Corp.	500,001-1,000,000	1,000,000- 5,000,000
Page 12:		
(Stock) ADP- Automatic Data Processing	15,001 - 50,000	50,001 - 100,000
(Stock) PPG Industries	15,001 - 50,000	50,001 - 100,000
Page 13:		
(Stock) WVO MSCI Emerging Marktets	1,000,000- 5,000,000	500,001-1,000,000
Mutual Fund JP Morgan Money Market Fund	100,001 - 250,000	500,001-1,000,000
Page 14:		
(Stock) RPXC- RPX Corportation	1,001 - 15,000	15,001 - 50,000
Mutual Fund JP Morgan Access Growth Fund	100,001 - 250,000	250,001 - 500,000

Date: July 23, 2013
Robert F. Bonnie
OGE Form 278, Submitted June 28, 2013
Changes in value to Assets Listed on Schedule A

Block A

Page 15:	Original Block B Value	Block B Value July 23, 2013
(Stock) IJH S&P Midcap 400	50,001 - 100,000	100,001 - 250,000
(Stock) IVV S&P 500	100,001 - 250,000	250,001 - 500,000
(Stock) IEV S&P Europe 350	15,001 - 50,000	50,001 - 100,000
(Stock) EWC- MSCI Canada	15,001 - 50,000	None or less than 1,001
(Stock) SHM Barclays Short Term Muni Bond	250,001 - 500,000	100,001 - 250,000
(Stock) VWO- MSCI Emerging Marktets	50,001 - 100,000	15,001 - 50,000
(Stock) VPL- MSCI Pacific	50,001 - 100,000	15,001 - 50,000
(Stock) VGK- MSCI European	15,001 - 50,000	50,001 - 100,000
(Stock) VCSH- Vanguard Short Term	100,001 - 250,000	None or less than 1,001
Page 16:		
Mutual Fund: JP Morgan Tax Free Money Market Fd	1,001 - 15,000	15,001 - 50,000
Page 17:		
(Other) Pivot Point Capital LP Hedge Fund	100,001 - 250,000	250,001 - 500,000

U.S. SENATE COMMITTEE ON AGRICULTURE, NUTRITION & FORESTRY
Questions for Executive Nominees
113th Congress

1. Basic Biographical Information

Please provide the following information.

Position to Which You Have Been Nominated	
Name of Position	**Date of Nomination**
Deputy Secretary, USDA	June 27, 2013

Current Legal Name			
First Name	**Middle Name**	**Last Name**	**Suffix**
Krysta	**Laverne**	**Harden**	

Addresses					
Residential Address (do not include street address)			**Office Address** (include street address)		
[redacted]			**Street:** **1400 Independence Avenue, SW**		
City: **Alexandria**	**State:** **VA**	**Zip:** **22314**	**City:** **Washington**	**State:** **DC**	**Zip:** **20250**

Other Names Used						
First Name	**Middle Name**	**Last Name**	**Suffix**	Check if Maiden Name	**Name Used From** (Month/Year) (Check box if estimate)	**Name Used To** (Month/Year) (Check box if estimate)
					Est ☐	Est ☐
					Est ☐	Est ☐

Birth Year and Place	
Year of Birth (Do not include month and day.)	**Place of Birth**
1959	Camilla, Georgia

Marital Status					
Check All That Describe Your Current Situation:					
Never Married	**Married**	**Separated**	**Annulled**	**Divorced**	**Widowed**
☐	x	☐	☐	☐	☐

Spouse's Name (current spouse only)			
Spouse's First Name	**Spouse's Middle Name**	**Spouse's Last Name**	**Spouse's Suffix**
Charles	Floyd	Hatcher	Sr

Spouse's Other Names Used (current spouse only)						
First Name	**Middle Name**	**Last Name**	**Suffix**	Check if Maiden Name	**Name Used From** (Month/Year) (Check box if estimate)	**Name Used To** (Month/Year) (Check box if estimate)
					Est ☐	Est ☐
					Est ☐	Est ☐

Children's Names (if over 18)			
First Name	**Middle Name**	**Last Name**	**Suffix**
Pauline (Step Daughter, deceased)	**Irma**	**Hatcher**	
Charles (Step Son)	**Floyd**	**Hatcher**	
Jonathan (Step Son)	**Edward**	**Hatcher**	

2. Education

List all post-secondary schools attended.

Name of School	Type of School (vocational/technical/trade school, college/university/military college, correspondence/distance/extension/online school)	Date Began School (month/year) (check box if estimate)	Date Ended School (month/year) (check box if estimate) (check "present" box if still in school)	Degree	Date Awarded
Valdosta State University	University	09/1977 Est ☐	05/1978 Est ☐ Present ☐		
University Of Georgia	University	09/1978 Est ☐	06/1981 Est ☐ Present ☐	ABJ	1981
		Est ☐	Est ☐ Present ☐		
		Est ☐	Est ☐ Present ☐		

3. Employment

(A) List all of your employment activities, including unemployment and self-employment. If the employment activity was military duty, list separate employment activity periods to show each change of military duty station. Do not list employment before your 18th birthday unless to provide a minimum of two years of employment history.

Type of Employment (Active Military Duty Station, National Guard/Reserve, USPHS Commissioned Corps, Other Federal employment, State Government (Non-Federal Employment), Self-employment, Unemployment, Federal Contractor, Non-Government Employment (excluding self-employment), Other	Name of Your Employer/ Assigned Duty Station	Most Recent Position Title/Rank	Location (City and State only)	Date Employment Began (month/year) (check box if estimate)	Date Employment Ended (month/year) (check box if estimate) (check "present" box if still employed)
Federal Government	USDA	Chief of Staff	Washington, DC	01/2011 Est ☐	Present Est ☐
Federal Government	USDA	Assistant Secretary of Congressional Relations	Washington, DC	09/2009	01/2011
Non Government	National Association of Conservation Districts	CEO	Washington, DC	03/2004	05/2009
Non Government	Gordley Associates	Sr Vice President	Washington, DC	01/1993	03/2004
Federal Government	US House of Representatives, Committee on Agriculture	Staff Director, Subcommittee on Peanuts and Tobacco	Washington, DC	01/1991	01/1993
Federal Government	US House of Representative , Office of Representative Charles Hatcher	Chief of Staff/Press Secretary, Legislative Director,Legislative Assistant, Receptionist	Washington, DC	06/1981	01/1991

(B) List any advisory, consultative, honorary or other part-time service or positions with federal, state, or local governments, not listed elsewhere.

Name of Government Entity	Name of Position	Date Service Began (month/year)	Date Service Ended (month/year) (check box if estimate) (check

		(check box if estimate)	"present" box if still serving)
		Est ☐	Est ☐ Present ☐
		Est ☐	Est ☐ Present ☐
		Est ☐	Est ☐ Present ☐

4. Honors and Awards

List all scholarships, fellowships, honorary degrees, civilian service citations, military medals, academic or professional honors, honorary society memberships and any other special recognition for outstanding service or achievement.

Blue Key Leadership Society, University of Georgia

5. Memberships

List all memberships that you have held in professional, social, business, fraternal, scholarly, civic, or charitable organizations in the last 10 years.

Unless relevant to your nomination, you do NOT need to include memberships in charitable organizations available to the public as a result of a tax deductible donation of $1,000 or less, Parent-Teacher Associations or other organizations connected to schools attended by your children, athletic clubs or teams, automobile support organizations (such as AAA), discounts clubs (such as Groupon or Sam's Club), or affinity memberships/consumer clubs (such as frequent flyer memberships).

Name of Organization	Dates of Your Membership (You may approximate.)	Position(s) Held
Georgia State Society	1981-2009	President, 1992
AgBusiness Club of Washington, DC	1993-2009	Treasurer, 1999 est
American Society of Association Executives	2004-2009	Member

6. Political Activity

(A) Have you ever been a candidate for or been elected or appointed to a political office?

Name of Office	Elected/Appointed/ Candidate Only	Year(s) Election Held or Appointment Made	Term of Service (if applicable)
Chief of Staff , USDA	Appointed	2011	Present
Assistant Secretary for Congressional Relations, USDA	Appointed	2009	2011

(B) List any offices held in or services rendered to a political party or election committee during the last ten years that you have not listed elsewhere.

Name of Party/Election Committee	Office/Services Rendered	Responsibilities	Dates of Service
Obama for President	Volunteer	Phone Banking	2008

(C) Itemize all individual political contributions of $200 or more that you have made in the past five years to any individual, campaign organization, political party, political action committee, or similar entity. Please list each individual contribution and not the total amount contributed to the person or entity during the year.

Name of Recipient	Amount	Year of Contribution
Obama for President	$250	2012
Obama for President	$250	2012
VA Democratic Party	$100	2012
Obama for President	$200	2011
Obama for President	$250	2008
Hillary for President	$250	2008

7. Publications

List the titles, publishers and dates of books, articles, reports or other published materials that you have written, including articles published on the Internet.

Title	Publisher	Date(s) of Publication
Grill the CEO, Column	National Association of Conservation Districts, News and Views Newsletter	2004-2008
Krysta Clear, Column	National Association of Conservation Districts, News and Views Newsletter	2004-2008
Forestry Notes, Column	National Association of Conservation Districts, member and partners newsletter	2009
Loud and Clear, Column	National Association of Conservation Districts, The Resource, Newsletter	2009

8. Lobbying

In the past ten years, have you registered as a lobbyist? If so, please indicate the state, federal, or local bodies with which you have registered (e.g., House, Senate, California Secretary of State).

US House of Representatives and US Senate 1997-2004

United States
Office of Government Ethics
1201 New York Avenue, NW., Suite 500
Washington, DC 20005-3917

JUL 3 - 2013

The Honorable Debbie Stabenow
Chairwoman
Committee on Agriculture, Nutrition,
and Forestry
United States Senate
Washington, DC 20510

Dear Madam Chairwoman:

In accordance with the Ethics in Government Act of 1978, I enclose a copy of the financial disclosure report filed by Krysta L. Harden, who has been nominated by President Obama for the position of Deputy Secretary, U.S. Department of Agriculture.

We have reviewed the report and have obtained advice from the agency concerning any possible conflict in light of its functions and the nominee's proposed duties. Also enclosed is an ethics agreement outlining the actions that the nominee will undertake to avoid conflicts of interest. Unless a date for compliance is indicated in the ethics agreement, the nominee must fully comply within three months of confirmation with any action specified in the ethics agreement.

Based thereon, we believe that this nominee is in compliance with applicable laws and regulations governing conflicts of interest.

Sincerely,

Jane S. Ley
Deputy Director

Enclosures

July 1, 2013

Mr. Stuart Bender
Designated Agency Ethics Official and
Director, Office of Ethics
U.S. Department of Agriculture
Washington, DC 20250-0122

RE: ETHICS AGREEMENT

Dear Mr. Bender:

The purpose of this letter is to explain the steps that I will take to avoid any actual or apparent conflict of interest in the event that I am confirmed for the position of Deputy Secretary for the U.S. Department of Agriculture (USDA). The steps detailed below take into account any potential conflicts or appearances thereof associated with this position.

As required by 18 U.S.C. § 208(a), I will not participate personally and substantially in any particular matter that has a direct and predictable effect on my financial interests or those of any other person whose interests are imputed to me, unless I first obtain a written waiver, pursuant to section 208(b)(1), or qualify for a regulatory exemption, pursuant to section 208(b)(2). I further understand that the interests of the following persons are imputed to me: any spouse or minor child of mine, any general partner of a partnership in which I am a limited or general partner; any organization in which I serve as officer, director, trustee, general partner, or employee; and any person or organization with which I am negotiating or have an arrangement concerning prospective employment.

I understand that as an appointee I must continue to abide by the Ethics Pledge (Exec. Order No. 13490) that I previously signed and that I will be bound by the requirements and restrictions therein in addition to the commitments I have made in this and any other ethics agreement.

I have been advised that this ethics agreement will be posted publicly, consistent with 5 U.S.C. §552, on the website of the U.S. Office of Government Ethics with other ethics agreements of Presidential nominees who file public financial disclosure reports.

Sincerely,

Krysta Harden

Krysta Harden

OGE Form 278 (Rev. 09/2010)
5 C.F.R. Part 2634
U.S. Office of Government Ethics

Executive Branch Personnel PUBLIC FINANCIAL DISCLOSURE REPORT

Form Approved:
OMB No. 3209-0001

Date of Appointment, Candidacy, Election, or Nomination *(Month, Day, Year)*	Reporting Status (Check Appropriate Boxes)	Incumbent ☐	Calendar Year Covered by Report	New Entrant, Nominee, or Candidate ☒	Termination Filer ☐ Termination Date *(If Applicable) (Month, Day, Year)*
06/27/2013					
Reporting Individual's Name	Last Name: Harden			First Name and Middle Initial: Krysta	
Position for Which Filing	Title of Position: Deputy Secretary			Department or Agency *(If Applicable)*: U.S. Department of Agriculture	
Location of Present Office (or forwarding address)	Address *(Number, Street, City, State, and ZIP Code)*: 1400 Independence Ave. SW, Washington, DC 20250			Telephone No. *(Include Area Code)*: 202-720-3631	
Position(s) Held with the Federal Government During the Preceding 12 Months *(If Not Same as Above)*	Title of Position(s) and Date(s) Held: Chief of Staff, USDA, 1/28/2011 - Present				
Presidential Nominees Subject to Senate Confirmation	Name of Congressional Committee Considering Nomination: Committee on Agriculture, Nutrition and Forestry			Do You Intend to Create a Qualified Diversified Trust? ☐ Yes ☒ No	
Certification I CERTIFY that the statements I have made on this form and all attached schedules are true, complete and correct to the best of my knowledge.	Signature of Reporting Individual: Krysta Harden			Date *(Month, Day, Year)*: 06/28/2013	
Other Review (If desired by agency)	Signature of Other Reviewer:			Date *(Month, Day, Year)*:	
Agency Ethics Official's Opinion On the basis of information contained in this report, I conclude that the filer is in compliance with applicable laws and regulations (subject to any comments in the box below).	Signature of Designated Agency Ethics Official/Reviewing Official: Stuart Ba DAEO			Date *(Month, Day, Year)*: June 28, 2013	
Office of Government Ethics Use Only	Signature: Jane S. Ley			Date *(Month, Day, Year)*: 7/3/2013	

Comments of Reviewing Officials *(If additional space is required, use the reverse side of this sheet)*

(Check box if filing extension granted & indicate number of days _____) ☐

(Check box if comments are continued on the reverse side) ☐

Fee for Late Filing
Any individual who is required to file this report and does so more than 30 days after the date the report is required to be filed, or, if an extension is granted, more than 30 days after the last day of the filing extension period, shall be subject to a $200 fee.

Reporting Periods

Incumbents: The reporting period is the preceding calendar year except Part II of Schedule C and Part I of Schedule D where you must also include the filing year up to the date you file. Part II of Schedule D is not applicable.

Termination Filers: The reporting period begins at the end of the period covered by your previous filing and ends at the date of termination. Part II of Schedule D is not applicable.

Nominees, New Entrants and Candidates for President and Vice President:

Schedule A--The reporting period for income (BLOCK C) is the preceding calendar year and the current calendar year up to the date of filing. Value assets as of any date you choose that is within 31 days of the date of filing.

Schedule B--Not applicable.

Schedule C, Part I (Liabilities)--The reporting period is the preceding calendar year and the current calendar year up to any date you choose that is within 31 days of the date of filing.

Schedule C, Part II (Agreements or Arrangements)--Show any agreements or arrangements as of the date of filing.

Schedule D--The reporting period is the preceding two calendar years and the current calendar year up to the date of filing.

Agency Use Only
Rec'd June 28, 2013

OGE Use Only

Supersedes SF 278 Editions.

OGE Form 278 (Rev. 09/2010)
5 C.F.R. Part 2634
U.S. Office of Government Ethics

Reporting Individual's Name: Krysta Harden

SCHEDULE A

Page Number: 2

Assets and Income — BLOCK A

For you, your spouse, and dependent children, report each asset held for investment or the production of income which had a fair market value exceeding $1,000 at the close of the reporting period, or which generated more than $200 in income during the reporting period, together with such income.

For yourself, also report the source and actual amount of earned income exceeding $200 (other than from the U.S. Government). For your spouse, report the source but not the amount of earned income of more than $1,000 (except report the actual acount of any honoraria over $200 of your spouse).

None ☐

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

	Assets and Income	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
Examples	Central Airlines Common				x												x						x										
	Doe Jones & Smith, Hometown, State			x																												Law Partnership Income $130,000	
	Kempstone Equity Fund					x								x										x									
	IRA: Heartland 500 Index Fund							x						x											x								
1	(Mutual Fund) AWSHX American Funds Washington Mutual A		X											X								X											
2	(Mutual Fund) AEPGX American Funds EuroPacific Gr A	X												X							X												
3	(Mutual Fund) AGTHX American Funds Growth Fund of Amer A		X											X							X												
4	(Mutual Fund) ANWPX American Funds New Perspective Fund A		X											X							X												
5	(Mutual Fund) SMCWX American Funds Small Cap World Fund A		X											X							X												
6	(Mutual Fund) ANCFX American Funds Fundamental Investors A	X												X							X												

* This category applies only if the asset/income is solely that of the filer's spouse or dependent children. If the asset/income is either that of the filer or jointly held by the filer with the spouse or dependent children, mark the other higher categories of value, as appropriate.

OGE Form 278 (Rev. 09/2010)
5 C.F.R. Part 2634
U.S. Office of Government Ethics

Reporting Individual's Name: Krysta Harden

SCHEDULE A continued

(Use only if needed)

Page Number: 3

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (Block A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	(Mutual Fund) ABNDX American Funds The Bond Fund of America		X											X								X											
2	Sun Life Financial Whole Life Policy			X													X					X											
3	(IRA) Wells Fargo (underlying assets listed below):																																
4	--- (Mutual Fund) HVCBX-American Funds Blue Chip Inc & Gr				X									X							X												
5	--- (Mutual Fund) HVSBX-American Funds Global Small Cap			X										X							X												
6	--- (Mutual Fund) HVLBX-American Funds Global Growth			X										X							X												
7	--- (Mutual Fund) HVABX-American Funds Asset Allocation				X									X							X												
8	--- (Mutual Fund) HVTBX-American Funds International			X										X							X												
9	--- (Mutual Fund) AGTHX-American Funds Growth Fund of America				X									X							X												

* This category applies only if the asset/income is solely that of the filer's spouse or dependent children. If the asset/income is either that of the filer or jointly held by the filer with the spouse or dependent children, mark the other higher categories of value, as appropriate.

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Reporting Individual's Name: Krysta Harden

SCHEDULE A continued

(Use only if needed)

Page Number: 4

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	— (Mutual Fund) HVNBX-American Funds Growth-Income				X									X							X													
2	(IRA) Wright Patman Congressional FCU (underlying asset listed below):																																
3	--- Cash		X																		X												
4	(IRA) Wells Fargo (underlying assets listed below):																																
5	--- (Mutual Fund) ARGYX-Invesco Global Real Estate		X											X							X												
6	--- (Mutual Fund) TMDPX-TimesSquare Mid Cap Growth		X											X							X												
7	--- (Mutual Fund) TWGIX-American Centy Mut Fds Growth Fund		X											X							X												
8	--- (Mutual Fund) CIPSX-Champlain Small Company Fund		X											X							X												
9	--- (Mutual Fund) DDVIX-Delaware Value Fund Institutional Class		X											X							X												

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Reporting Individual's Name: Krysta Harden

SCHEDULE A continued

(Use only if needed)

Page Number: 5

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	--- (Mutual Fund) FMIOX-FMI Focus Fund		X											X							X												
2	--- (Mutual Fund) SGOIX-First Eagle Overseas Fund Class I		X											X							X												
3	--- (Mutual Fund) ODVYX-Oppenheimer Developing Markets Fund Class Y		X											X							X												
4	--- (Mutual Fund) FTIXX-Goldman Sachs Fint Square Fds - Treasury Instruments	X												X							X												
5	--- (Mutual Fund) JCVIX-John Hancock Classic Value Fund Class I		X											X							X												
6	--- (Mutual Fund) HAINX-Harbor International Fund Institutional Class		X											X							X												
7	--- (Mutual Fund) AESGX-ING Small Company Fund Class Institutional		X											X							X												
8	--- (Mutual Fund) KLGIX-MainStay Cornerstone Growth		X											X							X												
9	--- (Mutual Fund) MHYIX-MainStay High Yield Corporate Bond Fund		X											X							X												

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Reporting Individual's Name: Krysta Harden

SCHEDULE A continued

(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

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1	--- (Mutual Fund) MEDIX-MFS Emerging Markets Debt Fd		X											X								X											
2	--- (Mutual Fund) MWTIX-Metropolitan West Total Return Bond Fund		X											X							X												
3	--- (Mutual Fund) HIEMX-Virtus Emerging Markets Opportunities Fd		X											X							X												
4	--- (Mutual Fund) PTTRX-PIMCO Total Return Fund Institutional Class		X											X							X												
5	--- (Mutual Fund) PCRIX-PIMCO CommodityRealReturn Strategy Fd		X											X							X												
6	--- (Mutual Fund) PDIIX-PIMCO Diversified Income Fund		X											X							X												
7	--- (Mutual Fund) RSVYX-RS Value Y Fund		X											X							X												
8	--- (Mutual Fund) RPIBX-T. Rowe Price International Bond Fund		X											X							X												
9																																	

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Reporting Individual's Name: Krysta Harden

SCHEDULE A continued

(Use only if needed)

Assets and Income — BLOCK A

Valuation of Assets at close of reporting period — BLOCK B

Income: type and amount. If "None (or less than $201)" is checked, no other entry is needed in Block C for that item. — BLOCK C

#	Assets and Income (BLOCK A)	None (or less than $1,001)	$1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Excepted Investment Fund	Excepted Trust	Qualified Trust	Type: Dividends	Type: Rent and Royalties	Type: Interest	Type: Capital Gains	Amount: None (or less than $201)	$201 - $1,000	$1,001 - $2,500	$2,501 - $5,000	$5,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	Over $5,000,000	Other Income (Specify Type & Actual Amount)	Date (Mo., Day, Yr.) Only if Honoraria
1	(401(K)) National Association of Conservation Districts (underlying asset listed below):																																
2	— TIAA Traditional Annuity		X																		X												
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	

* This category applies only if the asset/income is solely that of the filer's spouse or dependent children. If the asset/income is either that of the filer or jointly held by the filer with the spouse or dependent children, mark the other higher categories of value, as appropriate.

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Do not complete Schedule B if you are a new entrant, nominee, or Vice Presidential or Presidential Candidate

Reporting Individual's Name	SCHEDULE B	Page Number
Krysta Harden		8

Part I: Transactions

None ☐

Report any purchase, sale, or exchange by you, your spouse, or dependent children during the reporting period of any real property, stocks, bonds, commodity futures, and other securities when the amount of the transaction exceeded $1,000. Include transactions that resulted in a loss.

Do not report a transaction involving property used solely as your personal residence, or a transaction solely between you, your spouse, or dependent child. Check the "Certificate of divestiture" block to indicate sales made pursuant to a certificate of divestiture from OGE.

	Identification of Assets	Transaction Type (x): Purchase	Sale	Exchange	Date (Mo., Day, Yr.)	Amount of Transaction (x): $1,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000	Certificate of divestiture
Example:	Central Airlines Common	x			2/1/99			x									
1																	
2																	
3																	
4																	
5																	

* This category applies only if the underlying asset is solely that of the filer's spouse or dependent children. If the underlying asset is either held by the filer or jointly held by the filer with the spouse or dependent children, use the other higher categories of value, as appropriate.

Part II: Gifts, Reimbursements, and Travel Expenses

For you, your spouse and dependent children, report the source, a brief description, and the value of: (1) gifts (such as tangible items, transportation, lodging, food, or entertainment) received from one source totaling more than $335 and (2) travel-related cash reimbursements received from one source totaling more than $335. For conflicts analysis, it is helpful to indicate a basis for receipt, such as personal friend, agency approval under 5 U.S.C. § 4111 or other statutory authority, etc. For travel-related gifts and reimbursements, include travel itinerary, dates, and the nature of expenses provided. **Exclude** anything given to you by the U.S. Government; given to your agency in connection with official travel; received from relatives; received by your spouse or dependent child totally independent of their relationship to you; or provided as personal hospitality at the donor's residence. Also, for purposes of aggregating gifts to determine the total value from one source, exclude items worth $134 or less. See instructions for other exclusions.

None ☐

	Source *(Name and Address)*	Brief Description	Value
Examples:	Nat'l Assn. of Rock Collectors, NY, NY	Airline ticket, hotel room & meals incident to national conference 6/15/99 (personal activity unrelated to duty)	$500
	Frank Jones, San Francisco, CA	Leather briefcase (personal friend)	$350
1			
2			
3			
4			
5			

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Reporting Individual's Name	SCHEDULE C	Page Number
Krysta Harden		9

Part I: Liabilities

Report liabilities over $10,000 owed to any one creditor at any time during the reporting period by you, your spouse, or dependent children. Check the highest amount owed during the reporting period. **Exclude** a mortgage on your personal residence unless it is rented out; loans secured by automobiles, household furniture or appliances; and liabilities owed to certain relatives listed in instructions. See instructions for revolving charge accounts.

None ☐

	Creditors *(Name and Address)*	Type of Liability	Date Incurred	Interest Rate	Term if applicable	$10,001 - $15,000	$15,001 - $50,000	$50,001 - $100,000	$100,001 - $250,000	$250,001 - $500,000	$500,001 - $1,000,000	Over $1,000,000*	$1,000,001 - $5,000,000	$5,000,001 - $25,000,000	$25,000,001 - $50,000,000	Over $50,000,000
Examples:	First District Bank, Washington, DC	Mortgage on rental property, Delaware	1991	8%	25 yrs.			x								
	John Jones, Washington, DC	Promissory note	1999	10 %	on demand					x						
1	Bank of America (New York, NY)	Consolidation Loan	2008	11%	7 yrs		X									
2	Wells Fargo (San Francisco, CA)	Mortgage on Personal Residence	2012	4%	30 yrs				X							
3																
4																
5																

* This category applies only if the liability is solely that of the filer's spouse or dependent children. If the liability is that of the filer or a joint liability of the filer with the spouse or dependent children, mark the other higher categories, as appropriate.

Part II: Agreements or Arrangements

Report your agreements or arrangements for: (1) continuing participation in an employee benefit plan (e.g. pension, 401k, deferred compensation); (2) continuation of payment by a former employer (including severance payments); (3) leaves of absence; and (4) future employment. See instructions regarding the reporting of negotiations for any of these arrangements or benefits.

None ☐

	Status and Terms of any Agreement or Arrangement	Parties	Date
Example:	Pursuant to partnership agreement, will receive lump sum payment of capital account & partnership share calculated on service performed through 1/00.	Doe Jones & Smith, Hometown, State	7/85
1	I will continue to participate in a defined contribution plan with my former employer. Neither I nor my former employer will make any additional contributions.	National Association of Conservation Districts (Washington, DC)	6/2004
2			
3			
4			
5			
6			

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Reporting Individual's Name	SCHEDULE D	Page Number
Krysta Harden		10

Part I: Positions Held Outside U.S. Government

Report any positions held during the applicable reporting period, whether compensated or not. Positions include but are not limited to those of an officer, director, trustee, general partner, proprietor, representative, employee, or consultant of any corporation, firm, partnership, or other business enterprise or any non-profit organization or educational institution. **Exclude** positions with religious, social, fraternal, or political entities and those solely of an honorary nature.

None [X]

	Organization *(Name and Address)*	Type of Organization	Position Held	From *(Mo., Yr.)*	To *(Mo., Yr.)*
Examples:	Nat'l Assn. of Rock Collectors, NY, NY	Non-profit education	President	6/92	Present
	Doe Jones & Smith, Hometown, State	Law firm	Partner	7/85	1/00
1					
2					
3					
4					
5					
6					

Part II: Compensation in Excess of $5,000 Paid by One Source

Report sources of more than $5,000 compensation received by you or your business affiliation for services provided directly by you during any one year of the reporting period. This includes the names of clients and customers of any corporation, firm, partnership, or other business enterprise, or any other non-profit organization when you directly provided the services generating a fee or payment of more than $5,000. You need not report the U.S. Government as a source.

Do not complete this part if you are an Incumbent, Termination Filer, or Vice Presidential or Presidential Candidate.

None [X]

	Source *(Name and Address)*	Brief Description of Duties
Examples:	Doe Jones & Smith, Hometown, State	Legal services
	Metro University (client of Doe Jones & Smith), Moneytown, State	Legal services in connection with university construction
1		
2		
3		
4		
5		
6		

July 18, 2013

The Honorable Debbie Stabenow Chairwoman
Senate Committee of Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
Washington, DC, 20510

Dear Madam Chairwoman:

On June 28, 2013, a copy of my SF-278, Executive Branch Public Financial Disclosure Report, required in connection with my nomination to serve as Deputy Secretary for the United States Department of Agriculture was submitted to the U.S. Office of Government Ethics. That report contained all required financial information.

The Ethics in Government Act of 1978, as amended, also requires that I update certain amount of the information reported on the SF-278, i.e., that required by section 102(a)(1)(A) of the Act, respecting income (other than dividends, interest, rents, and capital gains) and honoraria, to date which occurs not more than five days before the date of the hearing to be held by your Committee to consider my nomination. The hearing to be held on my nomination is scheduled for July 23, 2013. The purpose of this letter is to report that since I filed that Financial Disclosure Report, I earned no such income. In addition there were no substantive changes to my SF-278, Executive Branch Public Financial Disclosure Report from June 28, 2013.

I trust that this letter satisfies the additional applicable reporting requirements contained in the Ethics in Government Act.

Sincerely,

Krysta Harden

July 12, 2013

The Honorable Debbie Stabenow
Chairwoman

The Honorable Thad Cochran
Ranking Member

Senate Committee on Agriculture,
Nutrition and Forestry
328-A Russell Senate Office Building
Washington, DC 20510

Dear Chairwoman Stabenow and Ranking Member Cochran:

The undersigned organizations write in support of the nomination of Robert Bonnie as the Undersecretary for Natural Resources and Environment at tbe U.S. Department of Agriculture. As USDA Undersecretary for Natural Resources and Environment, Mr. Bonnie will bring critical insight into innovative approaches to conserve and manage America's farms, ranches and forest lands.

Mr. Bonnie is a leading national expert on efforts to reward stewardship on private lands. Serving as Senior Advisor to Secretary Vilsack for Environment and Climate since 2009, Mr. Bonnie has demonstrated strong leadership at USDA on decisions to conserve the nation's natural resources. Before joining USDA, Mr. Bonnie co-led the Land, Water Wildlife program and directed the Center for Conservation Incentives at Environmental Defense Fund. For more than a decade at EDF, Mr. Bonnie worked collaboratively with farmers, ranchers and forest landowners to develop solutions to protect endangered species and other resources. His leadership will also be welcome in improving the operations of the National Forest System.

On behalf of our organizations and members nationwide, we strongly encourage your favorable consideration of Robert Bonnie to be the next USDA Undersecretary for Natural Resources and Environment. We are confident that he will advance the efforts of USDA to promote working landscapes along with healthy soil, clean water and air, and abundant wildlife. We look forward to continuing our work with him.

Sincerely,

American Bird Conservancy
American Forest and Paper Association
American Farm Bureau Federation
American Farmland Trust
American Forest Foundation
American Forests
American Loggers Council
American Rivers
American Soybean Association

Appalachian Mountain Club
Audubon
Biotechnology Industry Organization
C2I, LLC
Connecticut Forest and Park Association
The Conservation Fund
Defenders of Wildlife
Ducks Unlimited
Environmental Defense Fund
Environmental Working Group
Forest Landowners Association
Forest Resources Association
Hardwood Federation
Indiana Forestry and Woodland Owners Association
Iowa Environmental Council
Izaak Walton League of America
Louisiana Forestry Association
The Lyme Timber Company
Mississippi Land Trust
Mississippi River Corridor – Tennessee
Mississippi River Trust
National Association of Conservation Districts
National Association of State Foresters
National Association of Wheat Growers
National Barley Growers Association
National Bobwhite Conservation Initiative
National Conservation District Employees Association
National Corn Growers Association
National Cotton Council
National Farmers Union
National Pork Producers Council
National Sustainable Agriculture Coalition
National Wildlife Federation
National Woodland Owners Association
The Nature Conservancy
New England Forestry Foundation
Northern Forest Center
Oregon Small Woodland Association
Pellet Fuels Institute
Pollinator Partnership
Rayonier
Ruffed Grouse Society
Sierra Pacific Industries
Society of American Foresters
Southeastern Lumber Manufacturers Association
Southern Environmental Law Center
Sustainable Forestry Initiative, Inc.
Tennessee Forestry Association

Texas Forestry Association
Theodore Roosevelt Conservation Partnership
The Trust for Public Land
Union of Concerned Scientists
USA Rice Federation
US Canola Association
US Dry Bean Council
Vermont Woodlands Association
Washington Forest Protection Association
Weyerhaeuser
Wildlife Mississippi

cc. Members, Committee on Agriculture, Nutrition, and Forestry, United States Senate

U.S. Senate Committee on Agriculture, Nutrition & Forestry
328A Russell Senate Office Building
Washington, DC, 20510

Dear Chairwoman Stabenow and Ranking Member Cochran:

In light of the need for the nation to advance an economic vision for our public lands, mitigate climate change and find a balanced approach to resource management, Robert Bonnie is uniquely qualified to serve as the next Under Secretary of Natural Resources and the Environment at the U.S. Department of Agriculture. I write to urge your favorable consideration of his nomination for this position.

Mr. Bonnie recognizes that our nation's public lands and natural resources support the economy, local communities and the people whose lives depend on having access to quality places to live, work and play in the great outdoors. Nearly half of all Americans participate in outdoor activities every year, spending $646 billion pursuing these activities each year and supporting more than 6.1 million sustainable American jobs. The Under Secretary oversees the 193 million acres of national forests and grasslands vital to the country's recreation economy and local communities.

The Under Secretary is tasked with overseeing the production of goods and services from our national forests, the protection and preservation of natural resources on private land, and making important decisions that will affect the country's economy, sustainability and public lands available to future generations. Balancing all of these needs will require a candidate with a proven background in land management and a firm commitment to citizen engagement, which Mr. Bonnie has demonstrated throughout his extensive experience in public service and within the conservation community.

Although the Under Secretary is sure to face some tough decisions, Mr. Bonnie's intelligence, experience, relationships and passion for theses issues will ensure the conservation of the public lands and sustainable use of natural resources on both private and public lands – elements critical to the success of the Department of Agriculture as well as the recreation economy and America's overall economic recovery.

The first Chief of the Forest Service, Gifford Pinchot, explained that the mission of the Forest Service was— "to provide the greatest amount of good for the greatest amount of people in the long run." As Under Secretary, we believe that Robert Bonnie will preserve this century-old mission and provide the leadership needed to ensure that both public and private lands are managed in a way that promotes the health of the recreation economy and all citizens who work and play in the outdoors.

I urge you to vote to confirm Robert Bonnie as the next Under Secretary of Natural Resources and the Environment at the U.S. Department of Agriculture.

Sincerely,

Frank Hugelmeyer
President

Society of American Foresters
Growing better all the time

July 16, 2013

The Honorable Debbie Stabenow, Chairwoman

The Honorable Thad Cochran, Ranking Member

Committee on Agriculture, Nutrition, and Forestry
United States Senate
328-A Russell Senate Office Building
Washington, DC 20510

Dear Chairwoman Stabenow and Ranking Member Cochran:

The Society of American Foresters (SAF), the national scientific and educational organization representing more than 12,000 forestry professionals, strongly supports the President's nomination of Krysta Harden as Deputy Secretary and Robert Bonnie as Undersecretary for Natural Resources and Environment at the U.S. Department of Agriculture. SAF has full confidence that Ms. Harden and Mr. Bonnie will provide the leadership and vision necessary to improve the health and vitality of our nation's forests.

Throughout his career, Mr. Bonnie has championed the importance of stakeholder participation and markets for forest products as essential tools of forest management and conservation. He is a leading expert on incentive-based approaches to fostering and rewarding stewardship on private lands and has also worked extensively to forge interagency connections with the Department of Defense to restore forests on public lands. SAF believes that Mr. Bonnie's focus on innovative and collaborative approaches will help USDA make critical steps to protect forests from wildland fire, insects, land-use conversion, and other mounting threats.

Ms. Harden's extensive experience and genuine passion for collaboration at all levels will also strengthen USDA's efforts to ensure the health and retention of our nation's forests. Throughout her career, she has demonstrated a firm belief in multi-party and stakeholder collaboration—emphasizing the importance of local leadership in the success of public policy. Working in both the public and private sector, she has earned a reputation for straightforward decision making, fair judgment, and efficient problem solving.

Both possess the leadership qualities and integrity to direct USDA efforts to promote working forests and implement more landscape scale management projects. Accordingly, we respectfully ask you to approve the nomination of Krysta Harden as Deputy Secretary and Robert Bonnie as Undersecretary for Natural Resources and Environment.

Thank you for your consideration of our request. We look forward to continuing our work with Ms. Harden and Mr. Bonnie.

Sincerely,

Michael T. Goergen, Jr.
Executive Vice President and CEO
Society of American Foresters

5400 Grosvenor Lane | Bethesda, MD 20814-2198 | (301) 897-8720 | toll-free (866) 897-8720 | fax (301) 897-3690 | www.safnet.org

July 12, 2013

Honorable Debbie Stabenow, Chairwoman
Committee on Agriculture, Nutrition, and Forestry
United States Senate
328-A Russell Senate Office Building
Washington, D.C. 20510

Honorable Thad Cochran, Ranking Member
Committee on Agriculture, Nutrition, and Forestry
United States Senate
328-A Russell Senate Office Building
Washington, D.C. 20510

Dear Chairwoman Stabenow and Ranking Member Cochran:

The undersigned organizations write to express our strong support for the nomination of Krysta Harden as Deputy Secretary at the U.S. Department of Agriculture (USDA). In her four years at the Department, Ms. Harden has demonstrated an in-depth understanding of and genuine concern for the varied interests of USDA's many constituencies. She has shown even-handed judgment in working with diverse stakeholders, and she has been an integral member of a very effective policy team at the Department.

Ms. Harden has fully justified the confidence placed in her by the Committee and the full Senate when she was confirmed as Assistant Secretary of Congressional Relations in 2009. Her value to the Department was recognized by Secretary Vilsack when he named her as his Chief of Staff in 2011. Before joining USDA, Ms. Harden served as Chief Executive Officer of the National Association of Conservation Districts. Previously, she represented the American Soybean Association in Washington and served her native state of Georgia on the staff of Congressman Charles Hatcher.

We are very pleased that the President has selected Ms. Harden to serve the Administration and USDA's many constituents in the position of Deputy Secretary, and we look forward to continuing our excellent working relationship with her.

We respectfully ask that you approve the nomination of Krysta Harden for Deputy Secretary of Agriculture.

Sincerely yours,

Agriculture Retailers Association
American Association of Crop Insurers
American Beverage Association
American Coalition for Ethanol
American Farm Bureau Federation
American Farmland Trust

American Feed Industry Association
American Forest & Paper Association
American Forest Foundation
American Forests
American Horse Council
American Loggers Council
American Meat Association
American Mushroom Institute
American Sheep Industry Association
American Society of Agronomy
American Society for Nutrition
American Society of Plant Biologists
American Soybean Association
American Sugar Alliance
American Sugarbeet Growers Association
American Veterinary Medical Association
Animal Health Institute
Audubon
Biotechnology Industry Organization
C2I, LLC
California Association of Winegrape Growers
California Grape and Tree Fruit League
Center for Rural Affairs
CoBank
Congressional Hunger Center
Connecticut Forest & Park Association
Crop Insurance Professionals Association
CropLife America
Crop Science Society of America
Defenders of Wildlife
Ducks Unlimited
Environmental Defense Fund
Fair Food Network
Farm Credit Council
Florida Fruit and Vegetable Association
Florida Nursery, Growers & Landscape Association
Food Marketing Institute
Forest Landowners Association
Forest Resources Association
Georgia Fruit and Vegetable Growers Association
Georgia Poultry Federation
Grocery Manufacturers Association
Growth Energy
Hardwood Federation
Housing Assistance Council
Indiana Forestry & Woodland Owners Association

Izzak Walton League of America
KCE Public Affairs Associates
Louisiana Forestry Association
Mississippi Land Trust
Mississippi River Trust
National Association of Conservation Districts
National Association of Federal Veterinarians
National Association of Resource Conservation and Development Councils
National Association of State Foresters
National Association of Wheat Growers
National Barley Growers Association
National Biodiesel Board
National Chicken Council
National Coalition for Food and Agricultural Research
National Corn Growers Association
National Council of Farmer Cooperatives
National Farmers Union
National Grape Cooperative
National Milk Producers Federation
National Oilseed Processors Association
National Potato Council
National Renderers Association
National Rural Association
National Rural Electric Cooperative Association
National Rural Water Association
National Sorghum Producers
National Sunflower Association
National Turkey Federation
National Wild Turkey Federation
National Wildlife Federation
National Woodland Owners Association
New England Forestry Foundation
NTCA-The Rural Broadband Association
Oregon Small Woodland Association
Pellet Fuels Institute
Pollinator Partnership
Produce Marketing Association
Rain and Hail, LLC
Rayonier
Renewable Fuels Association
Ruffed Grouse Society
Snack Foods Association
Society of American Florists
Society of American Foresters
Soil Science Society of America
Southeastern Lumber Manufacturers Association

Southern Peanut Farmers Federation
Southwest Council of Agribusiness
Sunkist Growers
Supporters of Agricultural Research
Sustainable Forestry Initiative, Inc.
Tennessee Forestry Association
Texas Forestry Association
The Lyme Timber Company
The Nature Conservancy
The Trust for Public Land
United Egg Producers
United Fresh Produce Association
US Apple Association
US Canola Association
US Cattlemen's Association
US Dry Bean Council
US Dry Pea & Lentil Council
US Rice Producers Association
USA Rice Federation
Vermont Woodlands Association
Washington Forest Protection Association
Western Peanut Growers Association
Weyerhaeuser
Wildlife Mississippi

cc. Members, Committee on Agriculture, Nutrition, and Forestry, United States Senate

GEORGIA AGRICULTURAL COMMODITY COMMISSION FOR PEANUTS

445 Fulwood Boulevard
P.O. Box 967
Tifton, Georgia 31793
Phone 229-386-3470
FAX 229-386-3501
info@gapeanuts.com
www.gapeanuts.com

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Newton, Georgia

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Executive Director

Member

Southern Peanut Growers

July 22, 2013

The Honorable Debbie Stabenow
Chairwoman
Committee on Agriculture, Nutrition, and Forestry
United States Senate
Washington, D.C. 20510

Honorable Thad Cochran
Ranking Member
Committee on Agriculture, Nutrition, and Forestry
United States Senate
Washington, D.C. 20510

Dear Chairwoman Stabenow and Ranking Member Cochran:

The Georgia Peanut Commission writes to express our strong support for the nomination of Krysta Harden as Deputy Secretary at the U.S. Department of Agriculture (USDA).

Ms. Harden, a native Georgian and daughter of a peanut producer, knows first-hand the importance of agriculture in the U.S.

In her four years at the Department, Ms. Harden has shown even-handed judgment in working with diverse stakeholders. She has been an integral member of the USDA policy team.

Ms. Harden has fully justified the confidence placed in her by the Committee and the full Senate when she was confirmed as Assistant Secretary of Congressional Relations in 2009. Her value to the Department was recognized by Secretary Vilsack when he named her as his Chief of Staff in 2011. Before joining USDA, Ms. Harden filled numerous senior agricultural policy roles on Capitol Hill and in the private sector.

We are very pleased that the President has selected Ms. Harden to serve the Administration and USDA's many constituents in the position of Deputy Secretary, and we look forward to continuing our excellent working relationship with her.

We respectfully ask that you approve the nomination of Krysta Harden for Deputy Secretary of Agriculture.

Sincerely,

Armond Morris
Chairman

July 8, 2013

The Honorable Debbie Stabenow, Chair
Committee on Agriculture, Nutrition, and Forestry
United States Senate
Washington, DC 20510

The Honorable Thad Cochran, Ranking Member
Committee on Agriculture, Nutrition, and Forestry
United States Senate
Washington, DC 20510

Dear Chairwoman Stabenow and Ranking Member Cochran:

We the undersigned organizations are writing in support of the President's nomination of Krysta Harden as Deputy Secretary at the Department of Agriculture. In our view, Harden has a strong grasp of food, agriculture, and rural policy issues, is a skilled coalition builder, and knows how to work closely with Congress. We urge you to hold a confirmation hearing and approve her nomination as Deputy Secretary as quickly as possible.

As you know, Harden grew up on a family farm and has worked for the House Agriculture Committee, the American Soybean Association, and the National Association of Conservation Districts. This background has served ber well in her roles of Chief of Staff and as Assistant Secretary of Congressional Relations at USDA during these past four years. In addition to these formative experiences, her openness to dialog and consensus building with diverse constituencies and stakeholders and her commitment to fairness helps form the basis for our support of her nomination.

These are challenging times for those engaged in food and agricultural policy. We will continue to urge Congress to adopt a new five-year farm bill that reforms crop subsidies, includes full nutrition and conservation funding, enhances equity and diversity, and increases investments in new farmers, renewable energy, rural development and job creation, local and regional food systems, organic farming, healthy food access, and enforcement of competitive markets. We will also continue to urge Congress to repeal sequestration and end the practice of appropriating via continuing resolutions, raids on farm bill funding, and across-the-board spending reductions that are the opposite of thoughtful legislating and smart investment.

We are hopeful the current political stalemates will come to an end this year and the job of Deputy Secretary therefore will be to belp guide and manage a forward-looking set of programs and reforms that move us toward 21st century programs and policy at the Department. The status quo of farm bill extensions and continuing resolutions is really quite intolerable. In either event, however, whether the stalemate is broken or not, we believe that Harden will be an excellent member of the leadership team at USDA and will be committed to change and to getting the best results possible under whatever circumstances present themselves. We hope you agree and approve her nomination without delay.

Sincerely,

Alianza Nacional de Campesinas
Audubon
Center for Rural Affairs
Center for Science in the Public Interest
Community Food & Justice Coalition
Environmental and Energy Study Institute
FamilyFarmed.org
Farmers Market Coalition
The Food Trust
Hmong National Development, Inc.
Housing Assistance Council
Johns Hopkins Center for a Livable Future
Land Stewardship Program
Michael Fields Agricultural Institute
National Center for Appropriate Technology
National Latino Farmers & Ranchers Trade Association
National Organic Coalition
National Sustainable Agriculture Coalition
North Carolina Association of Black Lawyers Land Loss Prevention Project
Organic Farming Research Foundation
Organic Trade Association
Roots of Change
Rural Advancement Foundation International – USA
Rural Advancement Fund
Rural Coalition/Coalición Rural
Rural Development Leadership Network
Slow Food USA
Stonyfield Farm
Wholesome Wave

cc:

Members of the Senate Agriculture, Nutrition, and Forestry Committee
The Honorable Harry Reid
The Honorable Mitch McConnell

July 16, 2013

The Honorable Debbie Stabenow, Chairwoman

The Honorable Thad Cochran, Ranking Member

Committee on Agriculture, Nutrition, and Forestry
United States Senate
328-A Russell Senate Office Building
Washington, DC 20510

Dear Chairwoman Stabenow and Ranking Member Cochran:

The Society of American Foresters (SAF), the national scientific and educational organization representing more than 12,000 forestry professionals, strongly supports the President's nomination of Krysta Harden as Deputy Secretary and Robert Bonnie as Undersecretary for Natural Resources and Environment at the U.S. Department of Agriculture. SAF has full confidence that Ms. Harden and Mr. Bonnie will provide the leadership and vision necessary to improve the health and vitality of our nation's forests.

Throughout his career, Mr. Bonnie has championed the importance of stakeholder participation and markets for forest products as essential tools of forest management and conservation. He is a leading expert on incentive-based approaches to fostering and rewarding stewardship on private lands and has also worked extensively to forge interagency connections with the Department of Defense to restore forests on public lands. SAF believes that Mr. Bonnie's focus on innovative and collaborative approaches will help USDA make critical steps to protect forests from wildland fire, insects, land-use conversion, and other mounting threats.

Ms. Harden's extensive experience and genuine passion for collaboration at all levels will also strengthen USDA's efforts to ensure the health and retention of our nation's forests. Throughout her career, she has demonstrated a firm belief in multi-party and stakeholder collaboration—emphasizing the importance of local leadership in the success of public policy. Working in both the public and private sector, she has earned a reputation for straightforward decision making, fair judgment, and efficient problem solving.

Both possess the leadership qualities and integrity to direct USDA efforts to promote working forests and implement more landscape scale management projects. Accordingly, we respectfully ask you to approve the nomination of Krysta Harden as Deputy Secretary and Robert Bonnie as Undersecretary for Natural Resources and Environment.

Thank you for your consideration of our request. We look forward to continuing our work with Ms. Harden and Mr. Bonnie.

Sincerely,

Michael T. Goergen, Jr.
Executive Vice President and CEO
Society of American Foresters

5400 Grosvenor Lane | Bethesda, MD 20814-2198 | (301) 897-8720 | toll-free (866) 897-8720 | fax (301) 897-3690 | www.safnet.org

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Endangered species mitigation banking: promoting recovery through habitat conservation planning under the Endangered Species Act

Robert Bonnie*

Environmental Defense Fund, 1875 Connecticut Avenue, NW, Washington, DC 20009, USA

Received 15 May 1999; accepted 18 May 1999

Abstract

The Endangered Species Act has fostered considerable controversy surrounding its regulation of privately owned endangered species habitat. Private landowners believe that the law wrongly requires them to bear the burden of providing endangered species habitat on their property. At the same time, conservation of privately owned habitat is critical to the conservation of most endangered species. In order to resolve endangered species conflicts on private lands, the US Fish and Wildlife Service has been promoting the use of 'habitat conservation plans' which allow some loss of endangered species habitat in exchange for activities which minimize and mitigate for the loss. These plans have come under increasing criticism from environmentalists and conservation biologists who argue that the plans are contributing to the continued loss of endangered species habitat. This paper proposes that mitigation banking of endangered species habitat may provide a useful tool to resolve endangered species conflicts on private lands while concurrently advancing the recovery of endangered species. Mitigation banking would allow landowners seeking a permit to destroy endangered species habitat to mitigate the loss by buying mitigation credits from other private landowners who restore and/or protect suitable habitat. Mitigation banking has the potential to increase mitigation alternatives for the regulated community while providing a needed economic incentive for other landowners to restore and protect important habitats. From an ecological perspective, mitigation banking could allow for the exchange of fragmented habitats with little long range viability for habitats that are strategically located and can contribute to species' recovery. The paper concludes with a discussion of several questions that need further analysis in considering banking of endangered species habitat. © 1999 Elsevier Science B.V. All rights reserved.

Keywords: Endangered species; Mitigation banking; Economic incentives

* Corresponding author.

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1. Introduction

For 7 years, Congressional efforts to reauthorize the Endangered Species Act have languished amidst considerable controversy. As many species slip closer to extinction, environmentalists want to strengthen the law to give greater protection to endangered species' habitats. Regulated interests, on the other hand, including forest industry, ranchers, developers, and others want to curtail the Act's regulatory impact.

This political polarization has resulted largely from the ESAs regulation of private lands where the law prohibits direct taking of endangered species and adverse modification of occupied habitats. Landowners argue that the law wrongly requires them to idle land that harbors listed species and thereby bear the expense of providing rare wildlife.

This 'private lands problem' is not merely one of political consequence. In fact, most species on the endangered species list have the bulk of their habitat on private lands (Wilcove et al., 1996). Moreover, species that occur exclusively on non-federal lands (the majority of which are in private ownership) appear to be faring considerably worse than species reliant on the federal land base (Wilcove et al., 1996). Thus, to ensure both the survival and recovery of endangered species and the political survival of the ESA, conservationists must address the private land conundrum.

Increasingly, both sides, environmentalists and regulated interests, recognize the need for new approaches to the conservation of endangered species on private lands. There is growing support for incentive based approaches such as tax incentives and cost-share payments for protection of habitats on private lands (Keystone Center, 1995). Even so, Congress has yet to authorize significant funds for the creation of incentives for protection of privately owned endangered species habitat. Consequently, it appears conservationists may have to work within the confines of the current, albeit inadequately funded, ESA to resolve the problem of private lands.

This paper will argue that mitigation banking, a practice that has been applied in the context of wetlands regulation, has the potential to resolve many endangered species conflicts on private lands. Mitigation banking holds the promise, at least for some species, of giving landowners greater flexibility in meeting the requirements of the ESA while also advancing recovery of endangered species.

2. Habitat conservation planning

Conflicts involving endangered species on private lands have prompted the US Fish and Wildlife Service (FWS), the agency charged with enforcing the ESA, to attempt to resolve such disputes through the ESA's habitat conservation planning provisions which were added to the Act by Congress in 1982. Under Section 10 of the ESA, FWS can permit activities on private lands that destroy endangered species habitat in exchange for the landowner undertaking a 'habitat conservation plan' (HCP) that minimizes and mitigates the loss of such habitat to the 'maximum extent practicable'. The habitat conservation planning provisions were modeled on an effort to resolve a dispute over protection of habitat for two endangered butterflies on San Bruno Mountain in San Mateo County, CA. The San Bruno plan allowed for the loss of some butterfly habitat in exchange for the permanent protection and management of much of the habitat on the mountain for these species.

From 1982 to 1992, however, few HCPs were enacted, in part because the planning process was perceived as lengthy, arduous, and expensive. Moreover, within the FWS there was little institutional experience regarding habitat conservation planning and FWS did not actively advocate HCPs as a solution to private lands endangered species conflicts (Bean et al., 1991). That changed with the arrival of the Clinton Administration in 1993 and with Secretary of Interior Bruce Babbitt's promotion of HCPs as a way to resolve the private lands problem. Since that time, over 200 HCPs have been approved with an equal number now in various stages of development.

Those HCPs take several forms. The San Bruno plan, like many HCPs, allowed for the destruction of some habitat in exchange for the conservation

and management of sufficient habitat on-site to benefit both endangered butterflies. Regional HCPs approved recently in southern California allow destruction of habitat in exchange for the creation of a permanent reserve network to protect a host of endangered and declining species. Another common model is to allow incidental take on one tract in exchange for conservation activities elsewhere (i.e. off-site mitigation).

HCPs offer an opportunity not only to reconcile endangered species conflicts but to address aspects of conservation that are not adequately addressed through the ESA's prohibition against 'taking' endangered species habitat on private lands (Bean and Wilcove, 1997). While the take prohibition prohibits the destruction of habitat occupied by endangered species, it has sizable limitations. First, the take prohibition is often difficult to enforce because FWS typically has very limited data on the occurrence of listed species on private lands (Wilcove et al., 1996). This is in part because the take prohibition creates perverse incentives for landowners to suppress information about the presence of species on their lands so as to avoid ESA regulation (Wilcove et al., 1996; Polasky and Doremus, 1998).

Moreover, 60% of all endangered species are threatened by either introduced species or fire suppression (Wilcove and Chen, in press). Addressing these two threats on private lands will require active management by private landowners. Further, many species will require restoration of degraded habitat for their eventual recovery. Yet, the take prohibition requires no affirmative conservation actions on the part of private landowners — only that take be avoided. Thus, for species that require active management such as prescribed fire or restoration of native vegetation, the take prohibition provides only partial comfort.

Because HCPs require landowners to implement a conservation plan which minimizes and mitigates habitat losses, the plans have the potential to affect conservation in ways the take prohibition cannot. In exchange for permitted take of occupied habitat, HCPs can provide the resources for preservation, restoration, and/or management of declining habitats. HCPs also offer the opportunity to undertake proactive conservation planning in order to design reserve systems that will contribute to the conservation of endangered species.

Even so, HCPs have come under increasing attack from environmentalists and conservation biologists. Environmentalists have argued that many HCPs and their accompanying mitigation have not been grounded in sound biological principles. This is especially troublesome to many environmentalists because HCPs typically grant landowners 'no surprises' assurances, pursuant to the FWS's Habitat Conservation Plan Assurances ('no surprises') Rule, which provide landowners with a guarantee that they will not be required to undertake additional conservation measures beyond those that which they have agreed to in an HCP, should the plan later prove to be inadequate (Kostyack, 1998).

Another environmental criticism of HCPs has to do with the ESA itself. While the Act assigns FWS and all government agencies with a responsibility to recover endangered species, the statute only requires that HCPs 'minimize and mitigate (habitat losses) to the maximum extent practicable.' Furthermore, in authorizing HCPs, FWS is required to insure that they do not 'jeopardize the continued existence' of the target species. In other words, FWS is not required to insure that HCPs contribute to the recovery of listed species. Thus, HCPs have the potential to result in continuing losses of endangered species habitat, one privately owned tract at a time.

3. Endangered species mitigation banking

Can HCPs be written in ways that address the concerns of environmentalists and conservation biologists by advancing recovery of listed species while still enlisting private landowners in habitat conservation planning? Mitigation banking may well have potential as an endangered species conservation tool that is responsive to the concerns of both landowners and environmentalists. Most natural resource professionals and conservationists are familiar with mitigation banking of wetlands, which involves the restoration, creation, or

enhancement of wetlands at one site to compensate for the filling of wetlands elsewhere. Similarly, mitigation banking of endangered species habitat would allow landowners to purchase mitigation credits from other private landowners who conserve or restore strategically located habitat in order to fulfill the requirements of the ESAs HCP provisions.

3.1. Conservation planning under mitigation banking

Prior to mitigation banking, wetland mitigation was done primarily on a project-by-project basis which resulted in tiny mitigation sites, poorly-coordinated efforts, and outright mitigation failures. Wetlands mitigation banking offers — according to its proponents — an opportunity to scale-up mitigation efforts to produce larger, more ecologically valuable wetland sites.[1] There are now over 100 wetland-mitigation banks in operation and an equal number planned. This suggests that wetland mitigation has substantial appeal with the regulated community and that a viable market exists for wetlands mitigation banking. This is not to suggest that wetlands-mitigation banking does not have its critics. The Chesapeake Bay Foundation (CBF), for example, and other environmental organizations argue that mitigation banking could be a useful tool in wetlands conservation but that it has been misused in practice (Jennings, 1997).[2]

Endangered species mitigation under current HCPs is faced with some of the same difficulties that plagued wetlands mitigation prior to the institution of mitigation banking. In fact, poorly coordinated mitigation is perhaps a larger problem in the context of endangered species due to the biogeographic considerations surrounding species conservation. Recovery of endangered species is dependent not only on the quality and quantity of habitat available but on the spatial arrangement of that habitat on the landscape. Endangered species mitigation sites, even if they receive permanent protection, may be of little utility if they are scattered across a landscape with little hope of the site's endangered species population interacting with those on other lands. Unless mitigation sites are located in areas where they can contribute to larger populations, HCPs will not only not contribute to recovery but could in fact facilitate a continued loss of the species.

Furthermore, critics of FWS have noted that HCPs have often exacerbated the problem. Noss et al. (1997, p. 34) argue that the HCP process has not lived up to its potential for landscape level conservation, and has instead been used typically to permit small-scale projects to proceed: 'Section 10 (a) (the section of the ESA that authorizes HCPs) has become more of a permitting process than a mechanism for ambitious, proactive, regional conservation planning.' Such small-scale plans are often done in a piece meal fashion making it more difficult for them to contribute to broader conservation objectives for the target species (O'Connell, 1997).

By exchanging habitats that are isolated and/or have a low probability of long-term viability for suitable habitats that are strategically located relative to other endangered species populations, mitigation banking offers an opportunity not only to compensate for habitat losses but to enhance survival prospects for listed species. A critical issue for establishment of mitigation banks, therefore, is siting. Banks should be located proximate to existing endangered species populations on other protected lands. Land uses surrounding the mitigation bank are also an issue. Locating banks in urbanizing areas may not be advisable in the case of some species since such areas may

[1] Much of the discussion of wetlands mitigation banking in this paper is drawn from ELI (1993).

[2] CBF has criticized wetlands mitigation banking on several fronts, including: (1) mitigation banking has not stemmed the continuing net loss of wetlands; (2) banking often lacks proper public review; and (3) credits are often sold prior to successful mitigation (Jennings, 1997). Note that these concerns mirror criticisms of endangered species HCPs (i.e. continuing declines of species, lack of public participation, and weak requirements for successful mitigation). Wetlands mitigation banking is relatively new, and, as CBF points out, can be improved through better implementation. Done poorly, endangered species mitigation banking will be subject to similar concerns voiced by CBF and to similar criticisms as are being voiced now by environmentalists towards HCPs generally. Clearly, endangered species mitigation banking, which is just now being tested through a small number of HCPs, should build on the lessons of wetlands banking.

become ecologically isolated due to encroaching development. In addition, management of habitats for species that require periodic fire, for example, could be difficult in urban landscapes. Size is another important factor for mitigation banks. Banks would have to be large enough on their own or in conjunction with adjacent protected habitat in order to insure population(s) are of sufficient size to be genetically secure.

Ideally, questions relating to the siting of mitigation banks for particular species or ecosystems could be addressed through a conservation planning process undertaken by the FWS and including experts in ecology of the focal species. It may also make sense to incorporate a mitigation banking strategy into the ESA's recovery planning process for endangered species. Endangered species recovery plans typically designate recovery areas where conservation activities are to be focused. For many endangered species, the public land base is insufficient in these designated recovery areas to support genetically and/or demographically viable populations. Recovery planning, therefore, could designate areas where private land mitigation banks could contribute to recovery. Thus, where mitigation banking is used, HCPs would be designed with recovery in mind. Moreover, in areas where broad conservation planning is being undertaken to examine not just endangered but declining species, mitigation banking strategies could be weaved into such comprehensive efforts. In such efforts, banks could be sited for the benefit of both listed and declining species.

Of course, mitigation banking of endangered species habitat may not be suitable in many cases. In the case of wetlands, applicants for permits to fill a wetland are required first to seek alternatives that avoid impacts to wetlands. Secondly, applicants must attempt to minimize the impacts of the proposed project on wetlands. The outcome of the avoidance and minimization of impacts then helps determine the compensation, or wetlands mitigation, required of the applicant (ELI, 1993). This 'sequencing' (avoidance, minimization, and compensation) may also be relevant to endangered species and, in many cases, mitigation banking may not be the preferred alternative when the landowner could instead minimize the impacts of a project to endangered species or avoid them altogether. However, in some cases, minimization may not be suitable where the affected area is already a degraded and/or fragmented property with little potential to contribute to recovery. In such instances, mitigation banking may increase the species' probability of persistence.

3.2. Incentives under mitigation banking

Proponents of wetlands mitigation banking note that it creates an incentive for entrepreneurs to invest in conservation by establishing a bank with credits for sale to developers seeking wetland permits. Given the proliferation of wetlands mitigation banks, this indeed appears to be the case. The same would theoretically occur in endangered species conservation. At present, there are few economic benefits that accompany the presence of endangered species on private lands. However, mitigation banking would allow some landowners to profit from restoring and/or preserving endangered species habitats. Banking could also help finance the activities of conservation groups. The Nature Conservancy or other organizations, for example, could finance land acquisition, at least in part, by selling mitigation credits to landowners seeking incidental take permits. Such is already the case with wetlands-mitigation banking.

The advantage of wetlands mitigation banking for the regulated community is that it provides developers with a less expensive means to satisfy their requirements under Section 404 of the Clean Water Act. That is, when the alternative is between a development not occurring or being significantly scaled back and compensating for the wetlands loss through mitigation banking, developers have an opportunity to reduce their Section 404 compliance costs by purchasing mitigation credits for less money than the opportunity costs associated with reducing the scale or forgoing the project. Likewise, endangered species mitigation banking would benefit landowners seeking an incidental take permit by providing a range of mitigation alternatives. In essence, the establishment

of designated mitigation banks would create a market place where landowners could 'shop' for endangered species credits.

The price of mitigation credits is likely to be driven in large part by the land values at a mitigation bank site. Since land values range dramatically from land with high development potential on the urban fringe to rural farmland or forest land, mitigation banking would allow landowners seeking take permits to exploit divergent land values at different prospective bank sites to their advantage (Bonnie, 1996). As a result, landowners may be able to satisfy their ESA requirements far more inexpensively through mitigation banking than under an HCP, for example, which required on-site mitigation.

Mitigation banking could also decrease the time and transactions costs necessary to ascertain an HCP and accompanying permit to take endangered species habitat. This would be the case if FWS were to certify mitigation banks prior to their selling credits. To receive such certification, a bank would have to meet the siting and other criteria as discussed above. Certification of banks prior to the sale of mitigation credits would decrease the regulated community's uncertainty regarding the availability of endangered species mitigation and reduce the time delay associated with going forward with an HCP.

Market incentives will work to the detriment of endangered species if mitigation banks are not required to meet rigorous standards for restoration, management, and conservation of rare habitats. If some banks are able to offer low cost mitigation as a result of cutting corners on conservation, then the market will reward poorly managed banks and this will harm endangered species conservation efforts. Therefore, it is vital that FWS establish and enforce strict standards for mitigation banks based on the conservation needs of the target species.

3.3. Management of mitigation banks.

Management is a critical issue for mitigation under HCPs. In the case of many species, long-term conservation will require active management in the form of restoration of native vegetation, removal of exotic species, periodic prescribed fire, and other activities. Mitigation banking would address these management issues by essentially requiring these necessary activities to be funded by the landowner seeking mitigation credits. As a result, the costs of these activities would be capitalized in the price of a mitigation credit. In addition, the mitigation price would have to be large enough to insure the preservation of the site in perpetuity or at minimum over a long time horizon.

Another management issue is the timing of conservation activities on mitigation banks. In the case of wetlands, the creation of mitigation banks allows wetland restoration to occur prior to the loss of wetlands at the site where destruction takes place (ELI, 1993). (CBF argues, however, that this is unfortunately often not the case and that credits are sold before mitigation has occurred [Jennings, 1997]). Similarly, the creation of endangered species mitigation banks should allow for the restoration and conservation of valuable habitat prior to incidental take of listed species elsewhere. The advantage of this is that it allows biologists to insure the successful mitigation of habitat losses prior to those losses actually occurring. Where mitigation has not already been successfully undertaken and where a landowner seeks an immediate incidental take permit, it may be possible to issue such a permit by requiring the permittee to post a substantial bond to cover additional mitigation costs should mitigation prove unsuccessful.

3.4. Safe harbor and mitigation banking

A relatively new conservation program for endangered species called the 'safe harbor' program could facilitate mitigation banking of endangered species (Bonnie, 1997). The safe harbor program was designed to remove the disincentives to habitat restoration activities created by the ESA's take prohibition. That is, many landowners have been unwilling to restore habitat for listed species for fear that doing so would increase their regulatory liability under the ESA.

The safe harbor program removes disincentives to habitat restoration by providing private

landowners with the ability to 'undo' habitat restoration. Under a safe harbor agreement, landowners agree to protect currently occupied habitat and to undertake management activities for the benefit of endangered species on their land. In return, landowners are not responsible for increased ESA regulations should additional species occupy their land as a result of their conservation activities. Safe harbor programs have now been established for endangered species in North Carolina, South Carolina and Texas.

Theoretically, participants in the safe harbor program will restore degraded habitats and thereby increase populations of endangered species on their lands. This newly occupied habitat is not protected by the ESA's take prohibition due to safe harbor protections for the landowner. The Environmental Defense Fund has proposed allowing safe harbor landowners to sell the rights to such habitat to landowners seeking an incidental take permit elsewhere (Bonnie and Bean, 1996). In selling safe harbor rights, landowners would agree to relinquish their safe harbor rights to newly occupied habitat, thereby, bringing that habitat under the pervue of the ESA's take prohibition. In addition, landowners would agree to perpetual or long-term management of those lands for endangered species. Allowing landowners to market safe harbor rights would have the advantages of insuring successful mitigation prior to incidental take and of creating incentives for landowners to participate in safe harbor and, therefore, to restore endangered species habitat on their lands.

4. Remaining questions

There are several questions related to endangered species mitigation banking that will require additional thought and that may be place- and/or species- (or ecosystem-) dependent. For example, in the case of wetlands, mitigation banks are generally located in areas close to the wetlands loss. This is based on the rationale that wetlands provide important services such as flood control that need to be compensated for when wetlands are lost in a particular watershed (ELI, 1993). Local mitigation insures that these services are not lost within a particular watershed. While the protection of endangered species habitat does provide services such as open space preservation, the case for locating endangered species mitigation banks proximate to habitat losses is not as strong as in the case of wetlands. Endangered species habitats (that are not also wetlands) arguably are less likely to provide important local services. Therefore, the location of endangered species mitigation banks should be driven less by where the habitat losses occur and more by where such banks can be located to contribute to the eventual recovery of the species.

A question which is more likely to be species- and ecosystem-dependent, is the mitigation ratio. In many cases, habitats might be exchanged at a 1:1 ratio. However, there may be arguments for mitigation ratios that are either greater than or less than 1:1. For example, where highly degraded habitat is exchanged for strategically located, pristine habitat, a case could be made for a ratio which allows less than a 1:1 ratio and, thus, a net loss of habitat (though an enhancement of recovery prospects). Alternatively, habitats where restoration activities have a lower probability of long-term success might require a mitigation ratio greater than 1:1 to compensate for the increased risk associated with off-site mitigation. Ultimately, the mitigation ratio should be predominated by the needs of the species.

A related question is the unit of measurement for endangered species mitigation credits. That is, should mitigation banks exchange habitat on an acre-for-acre basis or according to the number of species present at the site to be taken? For some species it may be difficult to estimate the numbers of individuals to be taken and credits might, therefore, be measured on an acreage basis. This question of the proper unit of measurement is more complicated when mitigation banking involves more than one species. Credits might then be based on acreage of a particular ecosystem to be taken. The mitigation site would likely need to have the same suite of species present as the project site. For other species, it may be relatively easy to calculate precisely how many individuals will be taken by a landowner seeking an inciden-

tal take permit. The number of mitigation credits therefore may require that an equal number, at minimum, of the species be present at the mitigation bank.

A similar issue is whether banks could sell multiple credits for different species from the same tracts of lands. For example, a hypothetical mitigation bank in southern Mississippi containing longleaf pine might sell credits for both threatened gopher tortoises and endangered red-cockaded woodpeckers, both of which inhabit the longleaf pine ecosystem. However, would the bank owner be able to sell credits for conservation derived from one portion of the tract for the tortoise and then be able to sell woodpecker credits to another developer for the same portion of the property? Doing so would reduce the conservation benefits of some mitigation banks and, thus, is a practice that should not be allowed.

Should mitigation banking always require restoration of unoccupied habitat or is preservation of existing habitat also a suitable objective of a mitigation bank? For some species, preservation of already occupied habitat may be sufficient to compensate for the loss of species elsewhere, though doing so would result in a net loss of habitat (though not necessarily of recovery prospects) to the species. For other species, a net loss of habitat may not be tolerable. Again, this will be a site- and/or species-dependent decision.

This question of preservation vs. restoration may be particularly relevant for species where there are considerable knowledge gaps regarding their conservation biology. For example, some species are poorly studied and ecologists are unsure how to restore suitable habitat. In these cases, habitat preservation might be preferred while ecologists gain greater understanding of the potential of and requirements for habitat restoration. (It is important to note that all aspects of endangered species conservation are hampered by insufficient knowledge of species needs; designing mitigation banking is no different from any other conservation planning effort related to such species).

Finally, a related question which needs further thought is whether mitigation banks might serve multiple purposes of providing wetlands mitigation, endangered species mitigation and/or carbon sequestration. The benefit of allowing banks to serve multiple purposes is that bank owners would have a greater incentive to restore and or preserve habitats. It also may allow for the purchase of some important privately owned habitats that would otherwise be too expensive to acquire without government intervention. However, allowing multiple purpose banks could also reduce the total acreage protected under wetlands mitigation, endangered species mitigation and carbon sequestration.

5. Conclusion

Mitigation banking of endangered species habitat appears to be a proposition which holds considerable opportunity to resolve endangered species conflicts and address the needs of private landowners. However, clearly there are many questions that need further analysis. While this paper has outlined some of these issues, others no doubt remain.

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THE ROYAL SOCIETY

Protecting terrestrial ecosystems and the climate through a global carbon market

By Robert Bonnie, Melissa Carey and Annie Petsonk

Environmental Defense, 1875 Connecticut Avenue NW, Washington, DC 20009, USA

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Protecting terrestrial ecosystems through international environmental laws requires the development of economic mechanisms that value the Earth's natural systems. The major international treaties to address ecosystem protection lack meaningful binding obligations and the requisite financial instruments to affect large-scale conservation. The Kyoto Protocol's emissions-trading framework creates economic incentives for nations to reduce greenhouse-gas (GHG) emissions cost effectively. Incorporating GHG impacts from land-use activities into this system would create a market for an important ecosystem service provided by forests and agricultural lands: sequestration of atmospheric carbon. This would spur conservation efforts while reducing the 20% of anthropogenic CO_2 emissions produced by land-use change, particularly tropical deforestation. The Kyoto negotiations surrounding land-use activities have been hampered by a lack of robust carbon inventory data. Moreover, the Protocol's provisions agreed to in Kyoto made it difficult to incorporate carbon-sequestering land-use activities into the emissions-trading framework without undermining the atmospheric GHG reductions contemplated in the treaty. Subsequent negotiations since 1997 failed to produce a crediting system that provides meaningful incentives for enhanced carbon sequestration. Notably, credit for reducing rates of tropical deforestation was explicitly excluded from the Protocol. Ultimately, an effective GHG emissions-trading framework will require full carbon accounting for all emissions and sequestration from terrestrial ecosystems. Improved inventory systems and capacity building for developing nations will, therefore, be necessary.

Keywords: emissions trading; carbon sequestration; environmental treaties

1. Introduction

This paper examines the efficacy of existing international legal frameworks to protect terrestrial ecosystems, analyses the Kyoto Protocol's provisions governing the atmospheric impacts of land use and suggests improvements to Kyoto's market framework to further both conservation and protection of the climate. A single premise provides context for our entire analysis: protecting terrestrial ecosystems and the climate requires the development of economic institutions that value the Earth's natural

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systems. To be effective, international environmental laws must create mechanisms to finance protection of the climate and natural ecosystems.

We begin by examining the major international legal instruments that address ecosystem conservation. While we recognize the important contributions these treaties have made, we find in general that they lack the financial mechanisms necessary to catalyse environmental protection at a globally significant scale. We then turn towards market mechanisms, emissions trading in particular, and its potential to create incentives for cost-effective environmental protection.

We next undertake an extended discussion of the Kyoto Protocol's emission trading framework and the opportunity to weave land-based carbon-sequestration activities into the global market for greenhouse-gas (GHG) emissions-reduction credits. Land-use activities, particularly emissions from tropical deforestation, are an important part of the global carbon cycle. Including land-use activities in an international emissions-trading framework would provide a potentially cost-effective means to address climate change while providing significant ancillary environmental benefits.

The lack of robust carbon inventory data from the world's forests and agricultural lands hurt efforts to structure effective land-use provisions during negotiations in Kyoto in 1997. While the Kyoto Protocol will, if ratified, substantially advance environmental protection through market institutions, its land-use provisions are problematic. In particular, articles governing land-use activities in industrialized nations made it difficult in subsequent negotiations to create incentives for enhanced carbon sequestration and ecosystem protection without potentially undermining the stringency of Kyoto's emissions caps.

In Bonn and Marrakech in 2001, the Parties to the Protocol agreed upon rules implementing most aspects of the Kyoto framework. Broadly, the Parties preserved and strengthened the treaty. However, in the case of land-use activities, they failed to provide meaningful incentives for improved forest management in industrialized nations and missed a significant opportunity to use market mechanisms to address tropical deforestation.

We conclude by offering three recommendations for improving the structure and operation of the Kyoto Protocol's carbon-sequestration provisions. First, both industrialized and non-industrialized nations must invest in improved terrestrial carbon inventory systems. Second, for future commitment periods (2013 and beyond), the Protocol must require full carbon accounting (i.e. measurement and accounting for all land-based GHG emissions and sequestration) in all countries subject to emissions caps, thereby fully integrating land-use activities into the Kyoto framework. Full carbon accounting provides the most accurate accounting system, creates incentives for improved land management and will ensure that GHG emissions from loss and degradation of tropical forests are captured as developing countries adopt future emissions-reduction targets. Finally, developing countries need assistance to gain experience in reducing rates of deforestation while improving the livelihoods of their peoples before these countries can be expected to adopt emissions budgets under a full carbon accounting framework.

2. International environmental treaties

This section examines relevant provisions and programmes under the major biodiversity protection treaties, including the Convention on International Trade in Endan-

gered Species (CITES), the United Nations (UN) Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD) and the Ramsar Convention on Wetlands. Our purpose is to comment on their success and limitations in establishing international frameworks that lead to the conservation of natural ecosystems.

(*a*) *The Convention on International Trade in Endangered Species*

The 1972 UN Conference on the Human Environment, held in Stockholm, launched the development of a major set of international environmental instruments. Foremost among these was CITES, adopted in 1973. CITES regulates, monitors and limits commercial international trade in endangered species. When first adopted, CITES was quite innovative in classifying species according to their degree of vulnerability and rarity and in tailoring restrictions accordingly (Bean & Rowland 1997). Lyster (1985, p. 240) calls CITES, in which some 150 nations now participate, 'perhaps the most successful of all international treaties concerned with the conservation of wildlife'. However, compliance with the treaty has faltered in several countries since the 1980s (Weiss & Jacobson 1999).

Parties to CITES regulate wildlife trade through controls on species listed in three appendices to the treaty. CITES requires each Party to adopt national legislation designating a national Management Authority, which issues permits for trade in listed species. CITES also requires each Party to designate a national Scientific Authority responsible for advising the Management Authority on the issuance of permits. Parties are required to maintain trade records and forward those annually to the CITES Secretariat, enabling the Secretariat to compile statistical information on the global volume of trade in listed species. The treaty is enforced through presentations of reports on alleged infractions; national authorities enhance CITES enforcement through cooperation with customs, police or appropriate agencies. Bean & Rowland (1997) note the lack of effective enforcement mechanisms and the resulting variance in how the treaty is implemented by different Parties.

While CITES has made substantial contributions to the protection of wildlife, the treaty's reach is necessarily limited. CITES focuses narrowly on international trade and, thus, on the direct taking (e.g. shooting, capturing) of endangered wildlife. While direct taking is an important contributor to the loss of species, the greatest threat to biological diversity is the destruction of habitat, particularly in species-rich environments such as tropical rainforests (Wilson 1992). Given its exclusive focus on trade, CITES has had limited impact on the conservation of habitat and hence the considerable loss of biodiversity attributable to habitat loss.

(*b*) *The UN Convention on Biological Diversity*

In 1987, the World Commission on Environment and Development released the Brundtland Report. Entitled '*Our common future*', the report emphasized the importance of sustainable development and catalysed the 1992 UN Conference on Environment and Development, held in Rio de Janeiro, Brazil, on the 20th anniversary of the Stockholm Conference. At Rio, nations signed not only the UN Framework Convention on Climate Change (FCCC), but also the CBD, negotiated under the auspices of the United Nations Environment Programme (UNEP). Within weeks of the Rio summit, over 150 nations had signed the CBD and it entered into force in

1993. Notably, the US did not ratify the CBD, arguing that its benefit-sharing provisions jeopardized private industry's claims to intellectual-property rights in products derived from ecosystems.

The CBD has three broad objectives: to promote (1) the conservation of biodiversity, (2) the sustainable use of its components and (3) the fair and equitable sharing of benefits arising out of the use of genetic resources. While the CBD is legally binding on contracting Parties, its provisions relating to a variety of measures (e.g. impact assessments, establishment of protected areas, etc.) typically require Parties to take actions 'as far as possible and as appropriate'. Importantly, unlike the more narrow focus of CITES, the CBD explicitly recognizes and seeks to address the primary cause of species loss: habitat destruction (Bean & Rowland 1997). The Conference of the Parties (COP) to the CBD and the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) develop recommendations on a wide range of habitats, including inland water systems, marine and coastal environments, agricultural systems and forests. Recommendations on biosafety have matured into a binding protocol on biosafety adopted by the CBD's COP.

Perhaps the most interest in the CBD has centred around the treatment of intellectual-property rights in bio-prospecting. Species hold great promise in providing undiscovered compounds that could advance medical science or prove useful to humans in other ways. As such, conservationists have been keenly interested in the prospects of financing the protection of biodiversity through the sale of intellectual-property rights to unique genetic compounds. The CBD does not seek to create new property rights in biodiversity, but does seek to help guide bio-prospecting through advocating, for example, equitable sharing of the proceeds from the discovery of important natural compounds. Equity, particularly the ability of local people to share in the proceeds from valuable compounds, has been one of the more prevalent criticisms of bio-prospecting (e.g. Parry 2001). Given the range of opinions on bio-prospecting, the CBD has had to pursue policies that accommodate those nations that view trade in intellectual-property rights as part of the threat to biodiversity and those who view it as a potential solution (Bean & Rowland 1997).

Whether intellectual-property rights can provide a stable and effective source of revenue for the creation and maintenance of protected areas remains to be seen. Various factors will dictate whether a meaningful market emerges, leading to large-scale conservation, including the likelihood of finding a major marketable compound or set of compounds in any particular region, the extent to which the active compounds can be synthesized in the laboratory, their usefulness, their marketability and the ability to capture proceeds from bio-prospecting for conservation. While some, most notably Costa Rica's INBio programme, have secured agreements with pharmaceutical companies that have yielded revenues for conservation activities, arrangements allowing for access to genetic resources and benefit sharing have not yet produced the capital necessary to affect conservation on a globally significant scale.

Indeed, the economics of bio-prospecting may not provide the incentive necessary for widespread conservation. Simpson (1997) argues, for example, that, given the vast numbers of species and regions from which to choose, pharmaceutical companies place a low value on protecting any single species. Because they can gain access to many species-rich areas, these companies have a seemingly limitless supply of potential compounds; in other words, they have access to many substitutes, and any one specific land area, therefore, has little value. Consequently, Simpson (1997)

argues, pharmaceutical companies have a low willingness to pay for land conservation even if the area is species rich and threatened. This observation suggests that conservationists should rely on other strategies to conserve natural ecosystems and that, therefore, the CBD's bio-prospecting provisions will be likely to have limited influence on the protection of habitat.

(*c*) *The UN Convention to Combat Desertification*

Desertification is an acute problem with grave human consequences in developing countries, particularly in Africa. The 1994 UNCCD uses a 'bottom-up' approach to combat desertification, on the assumption that involving people who are affected by desertification in decision making is most effective in addressing and mitigating the problem. The CCD was ratified in 1996 and now has 178 participating Parties.

The CCD is governed by a COP, and it also works via a Committee on Science and Technology (CST), which advises and meets simultaneously with the COP. At the CST's recommendation, the COP has established an ad hoc panel to oversee the continuation of the process of surveying benchmarks and indicators, and has undertaken consideration of linkages between traditional knowledge and modern technology.

Articles 4, 6, 20 and 21 of the Convention recognize the importance of financial mechanisms in confronting the problem, particularly since most of the countries affected by desertification have few resources of their own. The CCD establishes a Global Mechanism, whose function is to guide and channel resources to activities, programmes and projects combating desertification. The Mechanism is housed in the International Fund for Agricultural Development (IFAD), an agency of the UN, is funded by the COP and seeks to leverage funds from the Global Environmental Facility (GEF), The World Bank, other development banks and voluntary donor nations.

Given the complex nature of the problem, it may well be too early to pass judgement on the effectiveness of the CCD. The CCD has, particularly through the Global Mechanism, clearly focused financial resources and attention on the problem. One potential weakness of the CCD, however, could be its reliance on development banks, the GEF and other nations for funding that is in high demand from a host of other competing interests.

(*d*) *The Ramsar Convention on Wetlands*

The Convention on Wetlands, negotiated in Ramsar, Iran, in 1971, provides a framework for national action and international cooperation for the conservation of wetlands and, as such, was the first international treaty focusing on wildlife habitat. The Convention encourages Parties to ensure the wise use of wetlands, though there are no associated legal obligations to do so. The Parties meet periodically to establish a Convention work plan and to review wetland conservation efforts. Most importantly, the Ramsar treaty establishes the List of Wetlands of International Importance (the 'Ramsar list'). Parties commit to designate at least one wetland to the list and to ensure the maintenance of the ecological character of each listed site. One hundred and thirty nations are Party to the treaty and over 1100 sites covering almost 88 million hectares have been included on the Ramsar list. Criteria for listing include, *inter alia*, the presence of rare species, important wildlife populations and unique wetland types.

A wetland's inclusion on the Ramsar list may boost efforts to protect it. Lyster (1985) provides several examples of wetlands whose status on the Ramsar list increased the political pressure for national action to conserve the sites. Other listed wetlands have not fared so well. Indeed, Ramsar includes no binding obligation to protect any listed site. Further, it contains no financial mechanism to fund conservation, the absence of which may make it particularly difficult for developing countries to conserve listed wetlands (Lyster 1985). Such a mechanism might also help to finance protection of wetlands in industrialized nations where opportunity costs of conservation are high.

At the eighth meeting of the Conference of the Ramsar Parties, to be held in Spain in November 2002, the Parties will consider, among other things, the use of economic incentives to protect wetlands. However, it appears likely that the conference will merely encourage Parties to adopt domestic incentive measures for wetlands conservation and to reiterate the need to repeal perverse incentives that encourage the destruction of wetlands (Ramsar Convention on Wetlands 2002). Thus Ramsar's most significant contribution to wetlands protection will continue to be focusing international attention on the importance of particular recognized sites. In the absence of legal obligations or comprehensive financing, such an approach will be limited in its effect.

(*e*) *Towards a market for ecosystem services*

CITES, CBD, CCD and Ramsar have each been successful in creating international institutions and, in some cases, bolstering national efforts to protect biodiversity and natural resources. However, these treaties suffer from a lack of binding obligations (CITES excepted), and from the absence of meaningful funding mechanisms. Of the four treaties discussed, the CBD, though we are pessimistic about its potential to effect significant conservation, is instructive in two important ways. First, while bio-prospecting is unlikely to steer substantial financial resources towards ecosystem protection, the CBD is daring in its effort to harness (or, at least, to help direct) private capital for conservation. Governments in industrialized nations will continue to fund environmental protection in varying degrees, but the potential of private businesses to do the same, particularly in the developing world, could be enormously important.

Second, the CBD's provisions related to genetic resources acknowledge the value of the unique services, in this case useful chemical compounds, provided to humans by natural systems. There is growing interest in valuing, through market mechanisms, the services provided by natural ecosystems, and there are many emerging applications of market solutions, including trade in water rights to benefit rare fish (Willey 1992), banking of endangered species habitat (Bonnie 1997) and certification of sustainably grown wood products. Likewise, in the context of GHG emissions, the creation of property rights in the form of these tradable commodities could potentially provide financial incentives for the conservation and improved management of ecosystems at a globally significant scale.

3. Emissions trading: theory and practice

In 1990, the US began what amounted to a large-scale experiment with emissions trading, a concept that economists had discussed for years, but which was largely

untested. The acid-rain programme, Title IV of the Clean Air Act Amendments of 1990, employed for the first time a cap-and-trade framework to halve sulphur dioxide emissions over a large geographic region.

While a traditional command and control regulatory approach mandates particular emission reductions by each source or use of a particular pollution control technology, emissions trading mandates only a fixed limit on aggregate emissions by the regulated sector. Under a cap-and-trade system, each unit of allowable emissions is associated with a permit, or allowance, that authorizes the bearer to emit that unit of emissions. Individual sources may buy or sell these emission allowances, but must tender for compliance allowances equal to their actual emissions. If a source can reduce emissions below its cap, then the surplus reductions may be banked or sold to another source, thereby creating economic incentives for surplus emissions reductions.

Similarly, under the Title IV system, the US Congress set a cap on sulphur dioxide emissions, allocated allowances to utilities on the basis of historic emissions, required utilities to possess one allowance for each ton of sulphur dioxide emitted each year and allowed them to buy, sell or bank allowances. If a utility's emissions exceed the number of allowances held, a stiff penalty of more than $2000 per ton of excess emissions is imposed, and the utility must surrender allowances equal to the number of tons of excess emissions (USEPA 2001*a*). The programme has resulted in 100% compliance and, through 1999, has seen an average of 22% over-compliance due to the banking provisions, resulting in greater emissions reductions than legally required (USEPA 2001*b*; Swift 2000). Allowance prices have averaged approximately $150 per ton (USEPA 2001*b*; Swift 2000; Ellerman *et al.* 2000), well below anticipated costs of $300–$1000 per ton (Hahn & May 1994).

Three critical elements of the Title IV programme account, in large part, for its success. First, the programme specifies a mandatory ('hard') cap on emissions in the regulated sector. Alternatives such as rate-based emissions caps, for example, or caps on emissions that limit the price of allowances will typically allow emissions to rise indefinitely into the future (Weitzman 1974; Baumol & Oates 1988). Second, emission units must be fully fungible and bankable into the future. If allowances cannot be banked for future use, businesses will seek to use all of them before they expire, thereby increasing actual emissions. With banking, however, sources have a strong economic incentive to reduce emissions below the level needed for compliance (Ellerman *et al.* 1997, 2000). Third, any legitimate cap-and-trade system must contain provisions to ensure strict compliance with the cap, including transparent measurement and reporting of emissions and penalties that are sufficiently high so that sources do not opt to exceed the cap and simply accept the penalty or fine associated with non-compliance (Ellerman *et al.* 1997, 2000; Swift 2000).

4. The Kyoto Protocol and emissions trading

The Kyoto Protocol places legally binding limits or caps on the emissions of six GHGs from 31 industrialized nations for the five-year period 2008–2012 (UNFCCC COP 1997). Nations with emissions caps are listed in Annex B of the Protocol and are frequently referred to as 'Annex-B Parties'. The Protocol implements its legally binding commitments by issuing Annex-B Parties emissions budgets denominated in 'assigned amounts' of GHG emissions allowances for the five-year period. These

budgets are calculated from the baseline of the nations' GHG emissions in 1990. For example, under the Protocol, member states of the European Union adopted emissions budgets for the 2008–2012 period at levels 8% less than their 1990 emissions. The Russian Federation adopted an emissions budget set at a level equal to its 1990 emissions. Annex-B Parties are required to ensure that their actual emissions do not exceed their emissions budgets. In the 2001 Marrakech Accords, the Parties signalled their intent to require that any Party exceeding its emissions budget at the end of 2012 must surrender emissions allowances in the next commitment period in an amount equal to excess emissions multiplied by a factor of 1.3 (UNFCCC COP 2001).

The Protocol includes four market-based mechanisms that may be used by nations to meet their emissions caps during the compliance period: emissions trading among nations with emissions caps, joint investment projects in nations with caps, reductions from joint investment projects in uncapped nations through the Protocol's Clean Development Mechanism (CDM), and reallocation of targets among groups of nations (UNFCCC COP 1997). Using these mechanisms, a nation with a cap on emissions may meet the requirements of the Kyoto Protocol in several different ways: it may adjust its emissions cap up or down by trading units of the cap with another capped nation (international emissions trading and reallocation of targets), by undertaking a project with another capped nation to reduce emissions within that nation's borders (joint implementation), or by undertaking a project to reduce emissions in an uncapped nation below what would have otherwise occurred (CDM).

The Kyoto Protocol also includes provisions for the inclusion of GHG emissions and sequestration from land-use activities in its emissions-trading framework. Before we turn to an explanation of those provisions, we first explain the rationale for including land-use activities in an international treaty addressing climate change. We then address the challenges of incorporating land-use activities in a GHG emissions-trading framework. Only then do we turn to the treatment of land-use activities in the Protocol.

5. Valuing the ecosystem services of forests

(*a*) *Global carbon cycle*

Land-use activities, and the management of forests in particular, have a significant effect on concentrations of GHGs in the atmosphere. Terrestrial ecosystems are estimated to provide a sink (or flux out of the atmosphere) of 2.3 ± 1.3 GtC yr^{-1} (IPCC 2000). A significant proportion of this carbon sink results from the regrowth of forests in the Northern Hemisphere (Caspersen *et al.* 2000). Emissions from land-use activities, primarily tropical deforestation, on the other hand, are estimated to be 1.6 ± 0.8 GtC yr^{-1} (IPCC 2000).

When tropical forests are clearcut, burned or destroyed, a significant proportion of the carbon stored in leaves, wood and soils is emitted into the atmosphere as carbon dioxide. Globally, 14.2 million hectares of tropical forest are lost annually (Food and Agricultural Organization of the United Nations 2001). Using IPCC data, emissions from land-use change, primarily tropical deforestation, comprise *ca.* 20% of total anthropogenic carbon dioxide emissions, and are comparable to CO_2 emissions from fossil-fuel combustion in the US, the world's largest emitter of GHGs (figure 1).

The contribution of tropical deforestation to climate change is equally dramatic when compared with the contributions from combustion of petroleum, coal and nat-

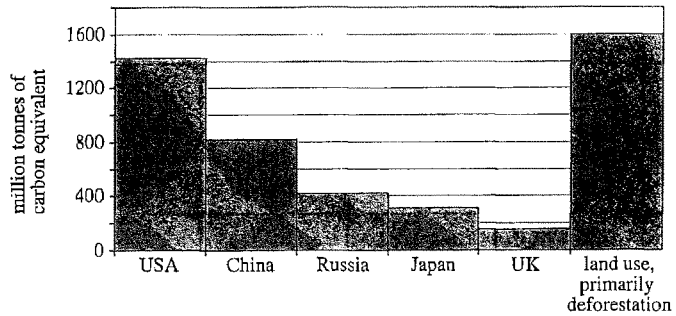

Figure 1. Comparison of mean annual deforestation emissions (1989–1995) to fossil-fuel emissions from major emitting countries (1995). Source: UNEP (1996); IPCC (2000).

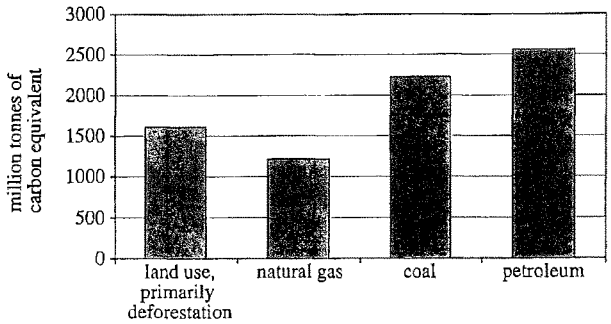

Figure 2. Comparison of mean annual deforestation emissions (1989–1995) to emissions from petroleum, natural gas and coal (1990–1999). Source: IPCC (2000); US Department of Energy (1999).

ural gas (figure 2). Thus addressing tropical deforestation must be fundamental component of an effective international climate policy.

(*b*) *Ecosystem services provided by terrestrial ecosystems*

Terrestrial ecosystems provide enormous benefits to society (Costanza *et al.* 1997), including carbon sequestration, watershed protection, erosion control, biodiversity conservation and others. Yet the traditional marketplace has typically proven inadequate at valuing ecosystem services (Bonnie *et al.* 2000). For example, forestlands typically have market values for the production of wood products or for the supply of potential agricultural land. Capturing these values requires harvesting timber or converting the forest to cropland or rangeland, both of which diminish at least some of the ecosystem services otherwise produced. Because markets do not yet broadly exist for ecosystem services, forest owners are often unable to reap financial rewards from conservation activities or non-consumptive uses of forests.

Creating a marketable value for the GHG benefits of standing forests would provide a potentially powerful incentive for forest protection. Further, in many ecosystems, valuing GHG benefits would serve as a useful proxy for the other ecosystem

services produced by the ecosystem. Protecting carbon stores in mature tropical rainforests, for example, simultaneously protects a diversity of wildlife species that use the rainforest. Kremen *et al.* (2000) demonstrated that if monetary compensation were given for reduced carbon emissions from curtailed deforestation in Madagascar, forest preservation would become a financially profitable endeavour for that country relative to timber harvest. Other non-forest-carbon-sequestration activities such as grassland restoration and conservation-tillage practices can increase carbon stocks while also providing ancillary environmental benefits such as erosion control and wildlife conservation. GHG emissions-trading systems that incorporate land-use activities have the potential to alter the way ecosystems are valued in a potentially significant way.

Many potential participants in such a market have already begun to explore opportunities for purchasing GHG offsets in the land-use sector. BP, American Electric Power and other companies, in partnership with The Nature Conservancy (an NGO), have invested approximately $10 million in a project to preserve 600 000 hectares of Bolivian rainforest. The project is anticipated to provide substantial GHG emissions reductions through reduced rates of deforestation in the region. In the US Mississippi River Delta, electric utilities have funded reforestation and permanent retirement of marginal agricultural lands, providing atmospheric benefits, improved water quality and enhanced wildlife habitat, including for the Louisiana black bear (*Ursus americanus luteolus*), a threatened species. McCarl & Schneider (2001) examined the potential of US farmers to respond to a market for carbon-sequestration credits. At a price of $50 per tonne of carbon, farmers would in time produce over 150 million tonnes of carbon equivalent in annual sequestration through changes in cropping practices, reforestation of cropland and other activities.

While carbon-sequestration activities generally provide substantial ancillary environmental benefits, there are instances where such activities may result in undesirable land-use practices. Poorly designed sequestration rules, for example, could allow for the 'off-book' liquidation of mature forests, with resulting emissions being unaccounted for, and then 'on-book' replacement, for credit, with younger trees. This threat, however, is easily solvable with rules that require establishment of carbon stock baselines based on historic data prior to forest liquidation.

A more difficult issue relates to fire-adapted ecosystems. Fire suppression in such ecosystems can increase carbon stores in the short term through an increase in a forest's shrub layer. However, fire suppression appears to be a very risky medium- to long-term sequestration strategy, as it increases the odds of catastrophic fires and the resultant significant GHG emissions. Nonetheless, the effect of carbon crediting on fire-adapted ecosystems bears watching.

Socio-economic issues are also an important consideration in the establishment of carbon markets, particularly in developing countries where land tenure regimes may be ill defined. Without appropriate safeguards, local residents may not benefit financially from market transactions. As with bio-prospecting, equity is an important issue both from an ethical standpoint and a practical one as support from local populations is important to ensure that conservation measures are enduring. With appropriate safeguards to protect land tenure of local people, however, local populations could stand to gain significantly from a carbon market.

The additional non-atmospheric benefits associated with carbon-sequestration activities tend to be quite positive. Emissions trading offers the possibility of placing

a marketable value on the ecosystem services provided by improved land-use practices, thereby creating incentives for the conservation of biodiversity, watersheds and soils.

6. Incorporating land-use activities in an emissions-trading framework

While there is a compelling environmental rationale for the inclusion of land-use activities in a GHG emissions-trading framework, two fundamental issues must still be addressed. First, can carbon stock changes in forests, vegetation and soils be accurately measured? Second, are credits produced in the land sector fully fungible with emissions-reduction credits produced through other means?

Land-based carbon stocks can be measured through statistical analyses of direct measurements in forests, vegetation and soils. In forest projects, measurement costs have been reported as low as $0.28 per tonne of carbon with precision levels greater than 95% (Kadyszewski 2001). However, many countries do not currently have a nationwide measurement system with the precision necessary to provide for emissions trading. While project-based activities are still an option, the absence of comprehensive, national carbon-measurement systems in many countries remain a significant obstacle to fully incorporating land-use activities in an international emissions-trading systems.

For a market to operate effectively, carbon-sequestration credits must not only be measurable, they must also be fungible with credits produced in other sectors of the economy. During the negotiations surrounding inclusion of land-use activities in the Kyoto Protocol, the question of fungibility was intensely debated, and centred largely on the reversibility, or so-called permanence, of carbon stocks. The IPCC notes that 'enhancement of carbon stocks resulting from land use, land-use change and forestry activities is potentially reversible through human activities, disturbances, or environmental change, including climate change' (IPCC 2000, p. 9).

The potential reversibility of carbon stocks requires on-going monitoring of carbon stocks that are included in an emissions-trading framework. If carbon stocks that have been credited in the system are later re-released, then they must be replaced from some other source. It matters not whether sequestration activities enter the market through project-based activities or a comprehensive nationwide measurement system. As long as all emissions of credited carbon stocks are accounted for and required to be replaced when lost, then the potential reversibility of carbon stocks will affect neither a nation's emissions cap nor atmospheric concentrations of GHGs. The requirement for ongoing measurement and liability of credited carbon stocks in the land-use sector will add to the costs of carbon-sequestration activities. Nonetheless, such an accounting system effectively renders moot any obstacle to emissions trading based on the reversibility of land-based carbon stocks.

7. The Kyoto Protocol's carbon-sequestration framework

The Parties to the Kyoto Protocol were, and still are, sharply divided on the appropriate role of carbon-sequestration activities in the Protocol. Adding to the political complexity, the negotiations have been plagued by a dearth of information regarding

the magnitude of emissions and sequestration in the land-use sector in both industrialized and non-industrialized nations. In negotiating the Kyoto Protocol in 1997, negotiators had little information on net sequestration rates for Annex-B Parties, which made it difficult for climate negotiators to assess the impacts of including land-use activities in emissions budgets established in Kyoto. Since 1997, there are still significant gaps in the quality of carbon inventory data. This lack of scientific data was clearly detrimental to negotiations in Kyoto, The Hague, Bonn and Marrakech.

(*a*) *Article 3.3: afforestation, reforestation and deforestation*

Article 3.3 of the Protocol requires Annex-B Parties to account for net emissions (or sequestration) from afforestation, reforestation and deforestation since 1990. Accounting under Article 3.3 is highly dependent upon the definitions of these three activities. For example, a definition of reforestation that includes re-establishment of a forest following timber harvest combined with a definition of deforestation that excludes emissions from timber harvesting would allow countries with large areas of managed forest land to receive a large volume of credit towards meeting their emissions budget without having to account for the emissions associated with harvesting. Such accounting anomalies could occur through a variety of definitional scenarios.

Alternatively, a system that requires accounting for carbon stock changes for land-use changes only (conversions of forest land to non-forest land and vice versa) would yield a framework that is most representative of atmospheric changes in GHGs resulting from afforestation, reforestation and deforestation. Even this interpretation of Article 3.3 could lead to some counterintuitive outcomes. For example, an Annex-B Party with roughly equal amounts of deforestation and reforestation (and, thus, a relatively stable forest land base) would be likely to have net emissions under Article 3.3, because deforestation of mature forests results in significant pulses of emissions, while afforestation and reforestation activities result in small sequestration gains because the volume of annual sequestration in young forests is low. More broadly, Article 3.3 produces this anomaly because it only accounts for a small portion of the forest-management activities affecting carbon-sequestration rates in Annex-B countries. Accurately capturing the atmospheric fluxes of GHGs resulting from land-use activities requires comprehensive accounting.

(*b*) *Article 3.4: other sequestration activities*

Beyond afforestation, reforestation and deforestation, the Kyoto Protocol failed to resolve whether and how other land-use activities would be treated in Annex-B countries. Article 3.4 of the Protocol directs the negotiators to decide upon rules by which the inclusion of 'additional human-induced activities related to changes in greenhouse gas emissions by sources and removals by sinks in the agricultural soils and the land-use change and forestry categories' in the Protocol could be 'added to, or subtracted from' an Annex-B Party's assigned amount. Thus treatment of land-use activities under Article 3.4 could have potentially significant implications for the assigned amounts of Annex-B nations. This can best be illustrated with a practical example. Here, we use the case of the US. Though the current US Administration has chosen not to participate in the Protocol, the case of the US nonetheless provides insight into the problems inherent in Article 3.4.

Table 1. *Ramifications of including land-use activities under Article 3.4 on the GHG emission reductions required by the US during the first commitment period of the Kyoto Protocol*

(Units are million metric tonnes of carbon equivalent (MMTCE).)

US allowable emissions under Kyoto Protocol (USEPA 2001*b*)	annual US fossil-fuel emissions 2008–2012	projected reductions under Kyoto Protocol	projected business-as-usual sink under Article 3.4	required reductions met with BAU sinks
1530	2039–2139	509–609	310	51–61%

Table 1 depicts the potential impact of inclusion of all land-use activities under Article 3.4 on the effective reductions required by the US to comply with its assigned amount. Allowable annual GHG emissions for the US under the Kyoto Protocol during the first commitment period (2008–2012) are 1530 million tonnes of carbon equivalent (MMTCE) (based on figures from the USEPA (2001*b*)). Under an assumed annual emissions growth of 1.2%, the US would emit *ca.* 2039–2139 MMTCE annually from 2008–2012, thus requiring annual reductions of 509–609 MMTCE to meet its Kyoto target. Prior to climate negotiations in The Hague in 2001, the US projected mean net carbon sequestration in the land-use sector of 310 MMTCE for the years 2008–2012 under business-as-usual assumptions (i.e. no substantial change in current US land-management practices). Consequently, by including all carbon-sequestration activities under Article 3.4 without any restrictions, the US could, through business-as-usual practices in the land sector, meet 51–61% of its required emissions reductions.

This outcome results not from inherent problems associated with accounting for land-use activities under an international framework, but instead from the architecture of the Kyoto Protocol and, especially, Article 3.4 itself. The Kyoto Protocol did not require Parties to include emissions and sequestration from land-use activities (other than from a limited set of agricultural activities, see Kyoto Protocol Annex A) in the calculation of their 1990 base year emissions (unless their land-use change and forestry in 1990 constituted a net source, see Kyoto Protocol Article 3.7). Thus, when the Protocol provided that the allowable total GHG emissions budgets for Parties would be set as a multiple of the base year emissions, emissions and sequestration from land-use activities were not subject to a baseline. Had the data been available on carbon stocks in Annex-B countries and had negotiators agreed to account for GHG sequestration (or emissions) from all land-use activities, then the targets might have been structured quite differently. Countries with large net sequestration would be likely to have been pressured to lower their targets substantially in order to reflect the expected sequestration. That clearly did not happen and, given the paucity of data, could not have happened in Kyoto.

Instead, the emissions budgets established in Kyoto did not explicitly recognize the potential contribution of business-as-usual land-use trends in Annex-B countries, and Article 3.4 left open the question of whether and how land-use activities would be treated. As such, efforts to include sequestration activities in Article 3.4 were viewed by many as an attempt to weaken the Kyoto targets. It is important to

note, however, that the inclusion of sequestration activities in Article 3.4 could also stimulate enhanced sequestration through an emissions-trading framework.

Negotiators focused on two approaches for limiting the impact of Article 3.4 activities on the Kyoto emissions budgets. The first approach was to limit the activities that would be eligible under Article 3.4. For example, narrowly defined activities, such as reduced-impact logging, grassland restoration and use of cover crops in croplands, would necessarily reduce the impact of Article 3.4 on emissions budgets because of these activities would result in fewer tonnes of carbon entering the system. But, as negotiators realized, such activities would face the same definitional problems noted in our earlier discussion of Article 3.3. Defining narrow activities would be difficult and could lead to gaming by nations that hoped to exclude emissions in the land-use sector while accounting only for sequestration activities (IPCC 2000).

The second approach to limiting the impact of Article 3.4 on the Kyoto was to focus on an over-arching limitation across all Article 3.4 activities. Three general variants of this approach were discussed: discounting, cap and 'threshold' methods. All three would limit the impact of Article 3.4 activities on the Kyoto targets, but each would create quite different incentives with respect to the management of the land-use sector.

The first option, discounting, would reduce all carbon-sequestration credits earned under Article 3.4 by some percentage (e.g. 90%). Discounting would reduce total sequestration tonnes markedly but would also dramatically reduce incentives for Annex-B nations to adopt policies that would enhance carbon sequestration. The second option, a cap, would place a numerical cap on the number of tonnes that Annex-B nations could earn under Article 3.4. Like discounting, a cap can create perverse incentives depending upon the level at which the cap is set. For example, assume an Annex-B nation is projected under business-as-usual trends to sequester 10 MMTCE of carbon annually through Article 3.4. If a cap were placed at 5 MMTCE for this nation, its entire allotment of carbon-sequestration credits would be fulfilled with business-as-usual sequestration, leaving neither room nor incentive for the country to adopt policies to further enhance its carbon stores.

The third option, a threshold approach, would provide a more environmentally beneficial way to limit credit under Article 3.4, if the threshold is set appropriately. Under this approach, an Annex-B country would only be allowed to claim credit for sequestration activities after surpassing some threshold level of carbon storage. For example, an Annex-B country might be assigned a threshold of 5 MMTCE, meaning that it would only receive credit for sequestration tonnes produced beyond this threshold amount. The threshold method would limit the amount of credit that can be claimed by Parties for carbon sequestration produced under business-as-usual projections, while maintaining incentives for countries to undertake additional activities to increase carbon stores.

The choice of policy instruments to limit crediting under Article 3.4 has significant ramifications for the effective stringency of the Kyoto targets and for the incentives provided to Annex-B nations to manage their forests and agricultural lands. As we will elaborate more fully below in our discussion of the Bonn and Marrakech Accords, it was the structure of Article 3.4 and the different political and economic aims of the negotiating Parties, rather than anything inherent in the nature of carbon sequestration, that made it difficult for negotiators to find a solution that both

preserved the stringency of the Kyoto targets and maintained incentives for improved carbon management in the land-use sector.

(c) *Article 12 and tropical deforestation*

The world's tropical rainforests are concentrated in Latin America, Africa and southeast Asia, regions not represented in Annex B of the Protocol. Thus Articles 3.3 and 3.4, which apply only to Annex-B nations, will not, in large part, affect the substantial GHG emissions from tropical deforestation during the first commitment period. However, if non-industrialized nations are subject to emissions budgets in subsequent commitment periods under the Kyoto Protocol, as one would expect, treatment of carbon-sequestration activities under Articles 3.3 and 3.4 will become a crucial factor in determining whether or not emissions from deforestation are indeed addressed in a comprehensive manner.

In the short term, tropical deforestation can only be addressed through Article 12 of the Kyoto Protocol, the CDM. Article 12 itself does not explicitly include or exclude land-use projects from eligibility. As such, inclusion of land-use projects in the CDM was hotly contested following the negotiations in Kyoto.

Under Article 12, industrialized nations may purchase 'certified emissions reductions' (CERs) from non-Annex-B nations. CERs are generated through projects that reduce emissions below what would have occurred in the absence of the project. In the case of tropical deforestation, this could potentially allow for projects designed to reduce rates of deforestation in the tropics, financed by the sale of CERs.

By definition, the CDM allows emissions trading between Annex-B nations (with emissions caps) and non-Annex-B nations (without emissions caps). The challenge in trading between sources in capped nations and sources in uncapped nations is in ensuring that reductions from uncapped nations, are, in fact, real. This requires accounting for two key factors. First, guidelines must be established to select an emissions (or sequestration) baseline from which to measure emissions reductions. Article 12 requires that CERs be issued only if 'reductions in emissions... are additional to any that would occur in the absence of the certified project activity'. This so-called 'additionality' provision requires project proponents to establish 'without-project' emissions baselines against which emissions reductions are measured. In the case of tropical deforestation, this would require the projection of without-project deforestation rates for the project area. Establishing such baselines should not be overly challenging, since tropical deforestation is a relatively predictable phenomenon (Bonnie *et al.* 2000).

Second, trading between capped and uncapped nations can result in leakage of GHG benefits if the project activities cause a shift of emissions-producing activities to areas outside the project boundaries. In the case of the forest sector, leakage could occur when timber harvesting is reduced on one tract, but the reduction of timber supply causes increased harvests on other forest land, thereby nullifying any gains to the atmosphere. To ensure that projects with uncapped nations result in real GHG reductions, project proponents must measure and account for leakage in calculating creditable GHG emissions reductions.

Most importantly, neither the challenge of baseline calculation nor the issues associated with leakage pertain solely to carbon-sequestration projects. They are characteristic instead of all emissions-reduction projects in uncapped nations and, thus, provide no rationale for excluding land-use activities from Article 12.

8. Treatment of land-use activities under the Bonn and Marrakech Accords

Adoption of the Kyoto Protocol in 1997 provided only a bare framework for the treatment of land-use activities. Significant unresolved issues remained, requiring decisions by the Parties ultimately resolved in Bonn and Marrakech. With respect to Article 3.3, negotiators were to decide upon definitions of afforestation, reforestation and deforestation. Negotiators also had to decide which activities to include under Article 3.4 and how to mitigate the impact of the provision's potential impacts on the stringency of the Kyoto targets. Lastly, the Parties had to decide whether or not carbon-sequestration projects would be eligible under the CDM.

The negotiations in Bonn and Marrakech were successful on many fronts in solidifying the emissions-trading framework in the Protocol and thereby promoting the potential establishment of an international market in GHG emissions-reduction credits. Unfortunately, the rules adopted for the carbon-sequestration provisions of the Protocol missed a number of opportunities to create positive incentives for countries to improve their environmental performance for the management of forests and agricultural lands. In some cases, the rules adopted encourage precisely the opposite behaviour.

Parties adopted definitions under Article 3.3 that account for the GHG emissions and sequestration from afforestation, reforestation and deforestation only in the context of land-use conversions. As such, the rules provide an accounting system that accurately reflects the atmospheric impacts from these three activities. However, as noted below, any such incentive to increase carbon stores provided by the elaboration of these definitions is greatly reduced by the treatment of forest management in Article 3.4.

Under the Bonn and Marrakech Accords, Article 3.4 allows Annex-B parties to elect to account for the GHG impacts from forest management, cropland management, grazing-land management and revegetation. Inclusion of the first three of these activities moves the Protocol towards a comprehensive accounting framework that avoids gaming, leakage and definitional problems associated with more narrowly defined activities. The inclusion of revegetation as an eligible activity, however, is problematic. The term appears intended to include re-establishment of non-forest vegetation in areas that do not meet the minimum specifications that define a forest. However, the exclusion of 'devegetation' as a required eligible activity for parties electing to include revegetation under Article 3.4 means that emissions associated with the clearing of such lands will not be recorded.

A far more serious problem is the method chosen to limit the amount of credit that Annex-B Parties can claim under Article 3.4. The Parties chose to place country-specific caps on the forest-management activities of all Annex-B nations. As noted earlier, a cap on forest sector crediting under Article 3.4 would be very likely to exclude credit for activities undertaken during the commitment period that enhance carbon sequestration. The effect of a cap, therefore, is at once to reduce the stringency of the Kyoto targets while robbing Annex-B nations of any incentive to increase carbon storage in the forest sector.

Ironically, in the case of cropland and grazing-land management, negotiators elected to apply the threshold method of accounting. The threshold chosen is the sequestration rate for that Party in 1990. This provision maintains incentives for

Parties to adopt policies that increase sequestration rates in the agricultural sector. Such an approach would have been environmentally preferable for forest-management activities under Article 3.4.

The perverse incentive for forest-management activities under Article 3.4 is made worse by two other provisions in the Bonn and Marrakech Accords. First, if a Party has excess forest-management sequestration after application of cap in Article 3.4, it may use those tonnes to cover any deficit it incurs in Article 3.3 up to 9 MMTCE annually. As such, nations with projections of sequestration in the forest sector that exceed the cap on Article 3.4 have little incentive to reduce rates of deforestation or increase rates of reforestation and afforestation.

Second, in Marrakech, Parties agreed to prohibit banking of unused forest-management tonnes in Article 3.4 (that is, unused tonnes in excess of the cap). The absence of banking is damaging both to forests and the climate. For example, assume a Party expects to have 10 MMTCE of unused forest-management tonnes after accounting for its Article 3.4 cap. With banking, the country has an incentive to ensure that it, in fact, produces those unused tonnes during the commitment period as they have value in subsequent commitment periods. Without banking provisions, no such incentive exists and, arguably, the nation might benefit by speeding forest harvests now, because it will not be penalized for lowering its forest-management sequestration to the level of the cap. Moreover, harvesting those forests earlier would enable the Party to earn credits for the regrowth of carbon stocks in regenerated areas in subsequent periods. Of course, many factors will dictate whether such forest liquidation does indeed occur, including the domestic policies of Annex-B countries in implementing the Protocol, forest products markets, forest ownership patters and others. Regardless, the incentives created by the rules governing Article 3.4 are very troubling.

Parties also chose to exclude projects addressing tropical deforestation from the CDM, seriously hampering efforts to address the *ca.* 20% of global CO_2 emissions from this source. The decision to forgo a potentially powerful financial incentive to value the ecosystem services associated with the conservation of tropical rainforests is perhaps the most vexing to advocates for tropical forest protection.

Making sense of the Marrakech decisions is difficult, but one factor in particular appears to have contributed substantially to the decision-making process of all Annex-B nations. All Annex-B Parties sought, for different reasons, certainty as to the number of available credits that could be garnered through carbon-sequestration activities. Some desired certainty that sequestration tonnes would be limited; others desired certainty that they would receive a specified number of sequestration tonnes. A country's particular stance on carbon sequestration was driven in part by whether it expected to be a net seller or net purchaser of emissions-reduction credits under the Protocol. For countries that expect to purchase emissions-reduction credits on the international market, a cap allowing credit of tonnes expected under business-as-usual trends provides certainty that they will receive a certain number of tonnes through Article 3.4 and will, therefore, have an easier job complying with the Protocol. These net purchasers also probably realized that there was no easy way to predict the number of sequestration tonnes that would be available for purchase under the CDM. Consequently, these net purchasers were not adamant in their support for the inclusion of projects addressing tropical deforestation in the CDM.

Nations that might be net sellers of emissions-reduction credits may have sought more guaranteed tonnes under Article 3.4 in order to ensure a predictable revenue stream. It was also in the interest of these countries to restrict tonnes entering the market from the CDM. Given the enormous GHG emissions from tropical deforestation, excluding such projects would make economic sense by restricting the supply of available credits on the world market and thereby receiving a higher price for their tonnes.

Those countries who stood to gain little from a liberal interpretation of Article 3.4, and who expected not to have to rely on carbon-sequestration tonnes for compliance, typically sought during the negotiations to limit the number of forest-management tonnes that other nations could use. A potential reason for this is that doing so would boost their economic competitiveness relative to other nations, as they could spend less national income on compliance with Kyoto. A cap under Article 3.4 and exclusion of projects addressing tropical deforestation in the CDM provided them with certainty that sequestration tonnes used by other nations would have an absolute limit.

Of course, nations may have been swayed by other factors than self-interest, though the above explanation is consistent with the positions of most Annex-B nations. In any case, the shortcomings of the decisions made in Bonn and Marrakech are likely to increase the costs, reduce the environmental effectiveness and potentially weaken forest protection under an otherwise well-designed emissions-trading framework under the Kyoto Protocol.

9. Creating an emissions-trading framework that protects biodiversity and the atmosphere

The Bonn and Marrakech Accords failed to develop rules for land-use activities that create positive incentives for management of terrestrial sinks in Annex-B and non-Annex-B countries. Emissions from land-use activities have contributed significantly to climate change. Recognizing that improved land-management practices and, in particular, effective measures to reduce rates of deforestation are critical to overall efforts to reduce GHG emissions, how can the Kyoto framework be improved to create incentives for enhanced carbon sequestration and reduced GHG emissions through improved land management?

(*a*) *Compilation of comprehensive scientific data*

An effective emissions-trading system requires comprehensive data on GHG emissions and sequestration. The Kyoto negotiations on carbon-sequestration activities have taken place in the absence of robust data on terrestrial carbon stocks from Annex-B nations. Annex-B nations must improve their carbon-measurement systems. Equally importantly, non-Annex-B nations must begin to develop better inventory systems, especially if the Protocol is to adequately address tropical deforestation. Such inventory systems in developing countries could be financed by industrialized nations in exchange for GHG credits produced through carbon-sequestration activities.

(*b*) *Move towards mandatory full carbon accounting for all nations*

A system of full carbon accounting (FCA) measures all changes, positive and negative, in all carbon stocks from all lands continuously. Under FCA, once lands enter the emissions-trading system, all carbon stocks on those lands are monitored permanently over contiguous commitment periods. FCA works within an emissions-trading framework because ultimately the atmosphere does not differentiate (and neither should climate policy) between carbon dioxide molecules produced by fossil-fuel combustion and such molecules produced through forest destruction. FCA is the only way to provide a balanced accounting system that accurately reflects the relationship between land-use activities and the atmosphere. FCA avoids the definitional issues, in evidence in Article 3.3 of the Protocol, associated with partial accounting systems.

In addition, FCA avoids the complexities, such as gaming, leakage and permanence of GHG benefits, associated with partial accounting systems. Gaming, for example, could result through a partial accounting system if some additional land-use activities are made eligible under Article 3.4, while others are not. Similarly, leakage of GHG benefits may occur through partial accounting systems. Where demand for agricultural land is high, for example, reforestation of agricultural lands could lead to agricultural intensification elsewhere. This transfer of activity could result in soil-carbon losses not captured by a partial accounting system.

FCA offers a superior approach to the permanence issue because it requires continuous monitoring of carbon stocks over contiguous commitment periods. As such, FCA will capture fluctuations in carbon stocks and, where necessary, require GHG emissions from the land-use sectors to be offset. In short, because all emissions on managed lands are captured over contiguous commitment periods under FCA, the reversibility of GHG benefits from land-use activities is not an obstacle to emissions trading.

Adoption of FCA would move the Kyoto Protocol towards a system in which projected emissions and sequestration from the land-use sector would be explicitly considered in the context of adopting assigned amounts for subsequent commitment periods. This avoids the difficulties associated with limiting business-as-usual crediting under the current configuration of Article 3.4. Under FCA, business-as-usual activities can be figured into the establishment of Kyoto emissions budgets. This is of central importance because it alleviates the tension between land-use activities and the stringency of Kyoto targets under Article 3.4, thereby resolving the perception (and an important political problem) that inclusion of carbon-sequestration activities are intended to weaken the Kyoto treaty. Done properly, inclusion of land-use activities will strengthen it.

Finally, in contrast to the current structure of Article 3.4, FCA must be mandatory for all Parties. This is crucial for addressing tropical deforestation as well as for emissions from other land-use activities. Tropical deforestation is the primary source of GHG emissions from many developing nations (e.g. Brazil). As developing countries enter Annex B by adopting emissions budgets, it is vital that they be given incentives to reduce deforestation. Allowing countries with significant land-use emissions to exclude large portions of the land sector would seriously undermine the effectiveness of the Kyoto Protocol. If accounting for land-use activities is to be reflective of atmospheric GHG concentrations and if tropical deforestation is to be confronted in a comprehensive way, FCA cannot be discretionary.

(c) *Capacity building in developing countries*

It is unlikely that developing countries will be willing to take emissions budgets that require FCA unless they gain experience in successfully curbing tropical deforestation while also providing for the needs of their citizens. The CDM provides a unique opportunity for developing countries to gain experience in addressing tropical deforestation. Projects addressing tropical deforestation must be made eligible for the CDM beyond the first commitment period. Negotiators should also consider revisiting the question of forest conservation project eligibility for the first commitment period.

The two greatest threats to the global environment are climate change and loss of biodiversity, the later of which is most severe in areas experiencing high rates of tropical deforestation. The inclusion of land-use activities in a GHG emissions-trading framework through full carbon accounting can potentially leverage substantial financial resources to reduce atmospheric GHGs and protect the Earth's terrestrial ecosystems.

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A MARKET-BASED APPROACH TO CONSERVATION OF THE RED-COCKADED WOODPECKER ON PRIVATE LANDS

ROBERT BONNIE, Economist, Environmental Defense Fund, 1875 Connecticut Avenue, NW, Washington, DC 20009 (202)387-3500

Abstract: Conservation of the federally endangered red-cockaded woodpecker (RCW) has generated significant controversy surrounding the bird's impact on forest management in the southern United States. Recovery of the RCW is dependent, in part, on private land conservation because of federal land base is insufficient to recover the bird. Private land conflicts place the U.S. Fish and Wildlife Service under increasing pressure to resolve such disputes, even if the resolution is not in the best interest of the species. Based on a review of past studies of the opportunity costs of RCW preservation, costs can vary significantly depending on a range of site specific characteristics, including forest stand characteristics, timber prices, land management objectives, and other factors. The variability in landowner opportunity costs suggests that (1) targeted private land conservation may be able to reduce the total costs of federal recovery efforts; and, more importantly, (2) a market-based habitat trading system could lower the costs of RCW conservation on private lands substantially by shifting habitat protection responsibilities from landowners with high opportunity costs to landowners with lower costs. This paper proposes such a system whereby landowners seeking incidental take of RCWs could pay other landowners to protect and manage newly created habitat on their lands. This proposal provides a viable solution to RCW conflicts on private lands that benefits landowners and the woodpecker.

INTRODUCTION

The Endangered Species Act (ESA) has come under increasing scrutiny for its impacts on private lands. The ESA prohibits actions on private lands that harm a listed species or its habitat unless the landowner obtains an "incidental take" permit from the U.S. Fish and Wildlife Service (USFWS). In deriding the ESA, opponents of the Act cite infringement on property rights and the costs of species preservation on private lands.

The endangered red-cockaded woodpecker (RCW) has been the focus of much debate in the southern United States for its impacts (real and perceived) on private lands. The RCW is a non-migratory, cooperative breeding bird living in "groups" that utilize mature, fire-maintained southern pine forests for foraging and nesting habitat. Populations of RCWs have declined dramatically in recent decades as a result of fire suppression, loss of mature pines for nesting habitat, the conversion of longleaf pine to other species, and habitat fragmentation (Lennartz and Henry 1985).

Endangered species disputes on private lands place the USFWS under increasing pressure to resolve such conflicts. Section 10 of the ESA allows incidental take of species on private lands where such take is minimized and mitigated through a habitat conservation plan (HCP). The use of HCPs has increased dramatically over the last five years for many endangered species and especially the RCW. However, because the ESA does not strictly define "minimization" and "mitigation," the USFWS has significant leeway in approving HCPs that may not be in the best interest of the species. When political pressures on the USFWS escalate, it may approve HCPs which

are of questionable biological value to the species.

The recent Red Oak HCP is a case in point (Red Oak Company 1995). The Red Oak Company purchased a 1,016 acre forested tract with two groups of woodpeckers present. The Company proceeded to clearcut the entire property, save 137 acres of foraging and nesting habitat for the RCWs. The Company then sought an incidental take permit from the USFWS. The final HCP for the property allowed the incidental take of the RCWs in exchange for (1) translocating RCWs from the property to a nearby military base; and (2) installing and monitoring artificial cavities on a National Forest.

There are several problems with this HCP. First, the Forest Service has an affirmative responsibility to restore RCWs on National Forests and, therefore, should not require funds from the private sector to fulfill its duties under the ESA. If the Forest Service cannot be counted on to manage proactively for the woodpecker on National Forests, the bird's future is in doubt. Second, the Red Oak HCP resulted in a net loss of habitat. Habitat on the National Forest already existed and could have been occupied sooner had the Forest Service simply drilled nesting cavities itself. Since habitat is the limiting factor for the RCW (and most endangered species), a net loss of habitat is likely to damage its long-term prospects for survival.

The difficulty facing the USFWS is how to administer the ESA on private lands in a way that reduces endangered species conflicts while aiding recovery efforts. One approach is simply to discount RCW conservation on private lands and focus recovery efforts solely on federal lands --the strategy that appears to underlie the Red Oak HCP. However, this strategy ignores the fact that the federal land base in the South is not sufficient to support recovery. The current USFWS Recovery Plan for the RCW sets 15 viable populations (viable is defined as 500 active groups per population) as the minimum threshold for recovery and delisting of the woodpecker (Lennartz and Henry 1985). The location of the 15 populations corresponds to the distribution of the federal land base across the South.

Twelve National Forests are to serve as recovery populations. The Forest Service's management plan for the woodpecker requires National Forests designated as recovery populations to meet the recovery goal "if the amount of suitable RCW habitat is sufficient" (U.S. Forest Service 1995). Of these 12 recovery populations, the Forest Service has assigned RCW population objectives at numbers greater than 500 active clusters on only 5 National Forests (U.S. Forest Service 1995). It appears, therefore, that the National Forests have insufficient suitable habitat to support recovery of 12 populations.

The three remaining recovery populations are located on military lands and state lands--all of which appear to be of insufficient size to support recovery populations of at least 500 groups. Moreover, there are populations of RCWs on public lands that are separated by several miles of intervening private land. For example, in the Sandhills region of North Carolina, a designated recovery population, RCWs on the Fort Bragg military base and the state-owned Sandhills Gamelands are separated by approximately seven miles of private lands; recovery is only possible in this population if private land habitat can serve as a bridge between the subpopulations on Fort Bragg and the Gamelands. Similar habitat "gaps" exist in the recovery populations occurring in Louisiana, North Carolina, and Texas.

Given what we know about the

biological requirements of the RCW coupled with the current federal land base in the South, recovery is unattainable without at least some private land conservation. Therefore, the USFWS should not adopt strategies which merely shift birds from private onto public land while reducing total RCW habitat. The USFWS must instead adopt strategies that promote preservation and restoration of RCW habitat on private land. Equally important, the USFWS must determine how to "mitigate and minimize" habitat losses resulting from landowners who seek an incidental take permit under Section 10 of the ESA. Ideally, such a mitigation strategy should provide landowners greater flexibility and reduced preservation costs while not adversely impacting recovery efforts.

The remainder of this paper begins with an examination of previous studies of opportunity costs of RCW preservation on private lands. From this discussion, I argue that conservation of RCW habitat on private lands is not only necessary for RCW conservation, but may also reduce total recovery costs. Secondly, I propose a habitat trading system, whereby landowners seeking an incidental take permit for RCWs could mitigate the loss by paying other landowners to protect habitat created on their lands.

Opportunity Costs of RCW Preservation on Private Lands

Several authors have analyzed the opportunity costs of RCW management. The cost of RCW preservation is an opportunity cost because landowners must often forgo timber or development revenue from the property to maintain habitat for the woodpecker in accordance with the ESA. In examining the opportunity costs of RCW preservation on the Croatan National Forest, Judge et al. (1984) found rising marginal costs of RCW preservation. While the authors modeled nesting habitat only, they found varying opportunity costs depending on stand age, site productivity, pine species, timber price appreciation rate, and discount rate. (This study was later summarized in Boyd and Hyde [1989].) Though the biological assumptions in this study are now outdated, this should not alter the conclusion that opportunity costs of RCW preservation are variable across stands. Marginal cost analysis can provide land managers with an important tool to decide the least cost method to protect a given population of RCWs (Boyd and Hyde 1989; Judge et al. 1984).

Lancia et al. (1989) analyzed the opportunity costs of providing foraging habitat for RCW groups in fully regulated longleaf pine stands. Foraging habitat requirements were based on the minimum stand age-class characteristics required for RCW groups on federal lands (i.e., 125 acres of foraging habitat > 29 years old, 50 acres > 59 years). Opportunity costs varied depending upon rotation age and acreage per cluster. Cleaves et al. (1994) determined the effects of different stand sizes and management regimes on RCW opportunity costs. Profit-maximization of a fully stocked loblolly pine stand was compared with management constrained by the USFWS' *Draft Guidelines for Protecting Red-Cockaded Woodpecker Habitat on Private Lands* (Costa 1992). (These guidelines require less foraging habitat per group than the federal guidelines used in Lancia et al. [1989].) Stand size and opportunity costs of RCW preservation were determined to be inversely proportional. The Environmental Defense Fund (EDF) (1995) found that revenue from pine straw harvesting in longleaf stands dramatically reduced the costs of RCW

preservation (EDF 1995). A similar conclusion was reached by Rosie et al. (1991).

From these studies, it follows that RCW opportunity costs are dependent on a number of site dependent factors including forest stand conditions, timber prices, acreage per group, pine species, and landowner discount rate. Land value for development may also have a dramatic effect on opportunity costs. An individual landowner's management objectives may be particularly important in assessing opportunity costs on private lands. For example, landowners managing forest stands for wildlife who utilize prescribed fire to reduce hardwood encroachment and maintain relatively open stand conditions, may be able to provide RCW habitat at relatively low costs per group-- witness the outstanding fire-maintained, longleaf pine habitat, ideally suited to the RCW, on quail plantations of the Red Hills region of Georgia.

It is important to recognize that opportunity costs are not static; as timber prices, development pressure, stand age, and/or other factors change, so will the costs of RCW preservation. Nonetheless, the variability in RCW preservation costs across landowners has important policy implications. First, it suggests that conserving at least some habitat on private lands may actually lower the total costs of meeting recovery goals. Second, and more importantly, variability in private land opportunity costs suggests that if transaction costs are minimal, a habitat trading system may be able to reduce the costs of RCW preservation to private landowners.

Opportunity Costs and Recovery

The first important implication of variability in RCW opportunity costs is that the total costs of RCW recovery may be reduced if the USFWS can determine ways to exploit the marginal costs curves of RCW preservation on public and private lands within a given recovery population. Figure 1 illustrates theoretical marginal cost curves for both public and private lands within a given RCW recovery population. As Boyd and Hyde (1989) illustrated, the marginal cost curve for RCW preservation is upward sloping and demand is determined exogenously. In this case, demand for RCW groups is 500, or the amount of active groups required for a population to be deemed "recovered." Building upon Boyd and Hyde's (1989) graphical analysis, I have added a marginal cost curve ("private") for private lands.

The only scenario under which private land conservation could not lower the total costs of recovery for a given population is when the 500th group on federal lands is less expensive than the first group protected on private lands (Figure 2). Note that the intercept of the private lands curve falls above the price (P^F) of the 500th group on federal lands.

The question, of course, is how to entice private landowners to create and/or preserve RCW habitat. A number of incentives have been proposed for endangered species conservation on private lands, including federal estate tax relief, tax credits for management expenses and property taxes, lease payments, and others (Keystone Center 1995; EDF 1995; Bourland and Stroup 1996). From the above discussion, it follows that such incentives should be targeted to private lands in region's where private land conservation is both necessary to recovery and a means to reduce total recovery costs.

Market-based Habitat Trading for RCWs

Financial incentives for RCW conservation on private lands clearly would

lower the costs to private landowners of producing and maintaining RCW habitat on those lands. However, even in the absence of such incentives, it may be possible to reduce the costs of RCW preservation to private landowners and provide them greater flexibility in meeting the ESA's land use requirements while enhancing recovery efforts.

This leads me to the second implication of the variability in private lands opportunity costs: RCW preservation costs could be lowered, perhaps significantly, by permitting private landowners to "trade" RCW habitat with high opportunity costs for habitat with lower opportunity costs. In its most basic form, habitat trading would allow a single landowner to establish an RCW group(s) on one portion of a property in exchange for liquidating habitat supporting an equal number of group(s) on another portion of the same the property. Since RCW opportunity costs can vary among timber stands, this approach could lower the landowner's opportunity costs.

In the case of private landowners who own several forested tracts with potential RCW habitat, such a forest products company, there may be gains from shifting RCW habitat responsibilities among different forest properties in order to reduce the company's preservation costs. For example, a company might own a forested tract with RCWs that has high opportunity costs because it is a very productive stand of timber located adjacent to a company paper mill. Therefore, the company might be better off financially by creating habitat on a different, less valuable property elsewhere. As long as a comparable habitat gain is made on the recipient property, then the trade will benefit the landowner while not adversely affecting recovery prospects for the RCW.

If landowners can reduce the RCW preservation costs by shifting RCW habitat responsibilities across their landholding(s), then comparable or more substantial cost savings could be found from habitat trading among different landowners. That is, a landowner seeking an incidental take permit could choose to pay another landowner to establish and protect comparable habitat on some other parcel of private land.

There are several obstacles that must be overcome in order to create a habitat trading system, including addressing the disincentives to habitat creation on private lands inherent in the ESA, insuring that occupied RCW habitat is created prior to the trade, creating a competitive market in order to reduce the mitigation price, and reducing transaction costs.

Many landowners are unwilling to enhance RCW habitat on their property for fear of future land use restrictions resulting from the ESA (EDF 1995). In the case of a habitat trading market, few landowners will be willing to create habitat unless they are guaranteed a payment covering their opportunity costs once the habitat is occupied. Since a habitat trading market implies many landowners competing for mitigation payments, it is impossible to guarantee a single landowner a mitigation payment prior to his establishing a new group. Without such certainty, it is unlikely a landowner will agree to create new RCW habitat. However, if landowners could create habitat without incurring added land use restrictions, then it may be possible to establish a pool of recipient properties with RCWs present that could then compete for mitigation dollars.

A new program developed by the EDF and the USFWS in the Sandhills region of North Carolina allows landowners to increase their RCW population without increasing endangered species land use restrictions and, therefore preservation costs. Under the "safe

harbor" program, landowners agree to enhance RCW habitat on their property. Since the ESA does not require proactive management for listed species, safe harbor landowners voluntarily exceed their legal obligations. In return, these landowners are assured that if the population of RCWs on their land increases, they will not be subject to additional land use regulations under the ESA. For example, a landowner with one group of RCWs present at the time of the agreement is assigned "baseline responsibilities" of one group. If after implementing the enhancement activities set forth in the agreement, the number of groups on the property should increase, the landowner will only be required to maintain the baseline of one group.

While the Sandhills safe harbor program has only been in existence since April, 1995, there are currently over 20,000 acres enrolled in the five county region. The USFWS predicts that the population on these properties could as much as double in 8-15 years (Cantrell, per. comm. 1996). These additional groups of RCWs created under the program are not protected under the ESA. A habitat trading system would build upon the safe harbor program by allowing mitigating landowners to purchase safe harbor "rights" from landowners enrolled in the program. In return for a mitigation payment, these safe harbor landowners would relinquish safe harbor rights to a newly created group(s) and increase their baseline responsibilities accordingly. As a part of the trade, the recipient landowner would agree to proactive management to protect the newly created group. The cost of such management would be embedded in the purchase price of a safe harbor right.

The underlying principle for RCW habitat trading is that the "take" of private land habitat should only be permitted where there is a comparable habitat gain made elsewhere; recovery should not be adversely affected by such trades. Trades would be allowed on a 1:1 ratio; that is, one group created and protected for every group lost. In limited cases, the USFWS might allow trades at a less than 1:1 ratio where such mitigation improves the probability of survival and recovery of a designated recovery population. For example, a less than 1:1 ratio might be permitted if trading group(s) with no long-term survival prospects for group(s) strategically located within a recovery population. Such trades would only be allowed where the net loss of habitat was overridden by the gains in securing habitat protection on private lands vital to recovery. A less than 1:1 ratio in special cases would have the advantage of increasing the value of mitigation properties in areas crucial to recovery. As a result, owners of these properties would have an added incentive to enhance and restore RCW habitat.

Note that the purchase of a safe harbor right is not the purchase of a conservation easement. Under the mitigation agreement, the safe harbor landowner would agree only to increase his/her baseline accordingly and to implement proactive management measures to the RCWs. Because proactive management by the recipient landowner is required, mitigation habitat would actually receive a higher level of protection than the ESA requires for groups currently present on private lands. However, it is possible that a recipient landowner could later decide to incidentally take a group or groups of RCWs on his/her property. If this is the case, then this landowner would re-enter the market as a mitigating landowner. Thus, unlike a permanent conservation easement, the sale of safe harbor rights would be theoretically reversible.

The downside of not requiring a conservation easement is that permanent

protection is not guaranteed, though trading at a 1:1 ratio assures no net loss of habitat. However, requiring a permanent easement would raise the price of the mitigation payment. Anything that raises the mitigation price under this habitat trading system increases the likelihood that landowners will choose to "wait out" the loss of an RCW group through fire suppression (resulting in hardwood encroachment and abandonment of the cluster site) rather than enter the mitigation market. While the former strategy carries risk for the landowner because the birds may linger for many years, the landowner may take on such risk if the mitigation price is very high.

Other strategies can also reduce the mitigation price. A habitat trading system will not reduce the costs of RCW preservation unless there is an ample supply of recipient properties; the market for safe harbor rights must be competitive. By expanding the safe harbor program to other states in the South, the USFWS would create a large pool of landowners with new groups of unprotected RCWs present. A large pool of safe harbor landowners will place downward pressure on the price of a "safe harbor right." Allowing interstate trades would increase the available pool of landowners and further lower the price of mitigation.

Another obstacle to a properly functioning market is high transaction costs. Currently, habitat trading would have to take place under Section 10 of the ESA. Since individual HCPs can be time consuming and costly (Bean et al. 1991), the traditional HCP process might override any gains from trading. However, a region-wide HCP that established a simple trading protocol across the range of the RCW would reduce transaction costs dramatically by avoiding the need for individual HCPs.

Transaction costs could be reduced further if the USFWS instituted a competitive bidding process. When a private landowner approached the USFWS requesting an incidental take permit for a group or groups of RCWS, the USFWS would solicit bids from all safe harbor landowners and choose the low cost landowner(s). The USFWS would reserve the right to prohibit trades that it deemed would damage recovery efforts.

In the previous section, I referenced several proposed financial incentives for endangered species preservation and restoration on private lands. If enacted, such incentives would complement the trading system outlined here. By targeting incentives to regions with recovery populations, private land opportunity costs in these regions would be reduced. Consequently, the market price for mitigation in these regions would also be reduced, and mitigating landowners would be more likely to purchase safe harbor rights in these areas. In other words, financial incentives would assist the market in reducing private land opportunity costs while enhancing, perhaps dramatically in some regions, recovery efforts.

CONCLUSION

This paper summarizes previous studies of the opportunity costs of RCW preservation on private lands. These studies indicate that opportunity costs of RCW preservation are dependent on a number of site dependent factors. The variability of opportunity costs on private lands has important implications for RCW preservation. First, private land conservation may be able to reduce total RCW recovery costs. Second, a habitat trading system which exploits variability in opportunity costs on private lands could reduce preservation costs to private landowners. This will, in turn, reduce conflicts

with RCW conservation on private lands.

Conflicts surrounding RCWs (and other endangered species) on private lands have generated substantial negative political fallout for the ESA and have paralyzed efforts to authorize and improve the law for species and landowners alike. Additionally, political pressure on the USFWS increases the likelihood that politically expedient HCPs will be approved which result in continuing habitat losses on private lands. Since many, if not most, endangered species require at least some private land habitat for their ultimate survival, a system which disenfranchises many private landowners, as the current ESA and its implementation appear to have done, is counterproductive, to say the least, to species preservation. Thus, environmentalists, private landowners and the USFWS should be keenly interested in strategies that reduce species preservation costs while assisting recovery efforts.

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Chapter 12

Financing Private Lands

Conservation and Management Through Conservation Incentives in the Farm Bill

Robert Bonnie

John Markham[1] and his family own a ranch in a county in central Utah, where 96 percent of the land is government-owned. The Markham ranch is potential habitat for the threatened Utah prairie dog (see figure 12.1), a species numbering just a few thousand, thanks to decades of persecution. In what many in the region consider a cruel irony, private lands host three quarters of the world's Utah prairie dogs. In fact, most U.S. endangered species rely on private lands to a significant degree for their recovery.

The region's semi-arid grassland ecosystem, its prairie dogs, and, notably, the Markhams' cows, could all benefit from the reestablishment of native grasses and the control of invasive shrubs. But, as Aldo Leopold writes, restoration is not free: "We must first examine briefly the time-honored supposition that conservation is profitable and that the profit motive is sufficient to motivate its practice."[2] Moreover, no law, not even the Endangered Species Act (ESA), compels the Markhams to manage their lands for the benefit of an endangered species or the restoration of an ecosystem. The ESA only requires that landowners avoid take, or destruction, of occupied habitat, not that they help restore endangered populations to healthy levels. If they are to eventually recover and be removed from the endangered species list, however, most endangered species

Figure 12.1.
Threatened Utah prairie dogs rely on landowners to protect and restore the grassland ecosystem they depend on in order to recover and eventually be removed from the endangered species list. (Photo by Edward Snow.)

populations are dependent on the willingness of landowners to restore and manage suitable habitat. Although necessary, the regulatory controls of the ESA and other laws are, by themselves, insufficient to accomplish the task of conserving crucial habitat found on U.S. farms, ranches, and private forests.

So why not buy the Markham ranch and allow the government to manage the land? Well, the Markham land isn't for sale. Indeed, 73 percent of the United States (excluding Alaska) is in private ownership, and most of it will stay that way. The government has

neither the resources nor the will to purchase all the land necessary to protect every endangered species or to ensure that we will continue to benefit from all of the other important natural resource–related services provided by private lands.

Though purchasing land will remain a critical conservation strategy, financing conservation on private lands is not just about real estate transactions. Conservation finance is also about providing incentives (financial and otherwise) to private landowners and managers that encourage them to protect and manage their lands in ways that maintain and enhance the environment.

The Farm Bill

The central importance of private lands to conservation is already reflected in U.S. conservation policy. Indeed, the U.S. government spends billions of dollars annually on the conservation and management of private lands. In particular, as a result of the Farm Security and Investment Act of 2002 (a.k.a. the 2002 Farm Bill), the U.S. Department of Agriculture (USDA) devotes about $3.5 billion annually to a number of private land conservation programs, which provide funding for land management, restoration, conservation easements, water quality protection, and other activities. Those programs provide, or at least should provide, the resources necessary to assist the Markhams and other landowners in producing both income and environmental benefits from their lands. Yet, in practice, the USDA must significantly improve both the design and implementation of its conservation programs to maximize their conservation benefits.

Targeting Resources Increasing the conservation benefits of the USDA's programs will require at least three things. First, those programs must do a better job of targeting resources to landowners and regions where the benefits of restoration and environmental management are the greatest. Conservation programs should also bolster projects that work across property lines by involving many landowners in protecting important natural resources. With respect to biodiversity protection, targeting resources toward endangered, threatened, and rare species will require efforts to address landowners' reluctance to manage their lands in ways that might invite federal regulation under the ESA. The U.S. Fish and Wildlife Service has

developed mechanisms for providing landowners with assurances that their regulatory burden will not increase as a result of stewardship activities. Until the USDA can provide similar assurances for its conservation programs, as it could by seeking authority from the Fish and Wildlife Service to do so under the ESA, landowner trepidation about restoring habitat for rare species will remain a barrier to expanding the conservation benefits from USDA programs.[3]

Rewarding Higher Levels of Performance In addition, USDA programs must spur higher levels of performance by rewarding landowners who have a greater commitment to stewardship. The Markham family, for example, are rare ranchers to be considering aiding threatened prairie dogs, a competitor for forage that many ranchers prefer to do without. Conservation incentive programs should seek out and reward such landowners, whether they commit to protecting an endangered species or to implementing a superior manure management program that protects water quality from nutrient runoff. USDA programs have not done enough to encourage higher levels of stewardship.

Increasing Capacity for Outreach and Technical Assistance Finally, the USDA must increase its capacity to provide outreach, technical expertise, and other forms of assistance to landowners. Part of the solution to this problem is, of course, having the staff resources necessary to implement Farm Bill conservation programs—programs that have grown dramatically in size, scope, and complexity throughout the past two decades. In addition, the USDA must do a better job of partnering with land management consultants and conservation groups who can help bring private landowners into USDA programs and provide the expertise to implement conservation activities on private lands.

To better understand the multifaceted challenges facing the USDA, consider the following discussion of three of the most important Farm Bill conservation programs: the Environmental Quality Incentive Program, the Conservation Reserve Program, and the Conservation Security Program.

The Environmental Quality Incentive Program: Improving Management on Working Lands In the case of the Utah prairie dog and other rare species, the USDA's Environmental Quality Incentive Program (EQIP) has the potential to provide significant financial incentives to assist landowners meshing livestock operations with wildlife conservation. At approximately $1 billion annually, the program is the USDA's second largest to deal with conservation, and it offers landowners up to 75 percent of the costs of carrying out specific conservation practices on cropland, pastureland, rangeland, and forestland. Of its funding, 60 percent is set aside for livestock operations. Furthermore, the Natural Resources Conservation Service (NRCS), the USDA agency overseeing the program, has established conservation of rare and declining wildlife as one of the four national priorities for the program. Nevertheless, EQIP has yet to provide much promise for the Markham ranch.

EQIP allocates funds to the states through a complex national formula based on agricultural and conservation needs. NRCS state offices work with State Technical Committees (that is, a stakeholders' advisory committee within each state) to develop ranking systems that prioritize statewide resource concerns and project types. Using these ranking systems, NRCS chooses among landowner applications and allocates EQIP dollars within each state accordingly. In short, the development of these state ranking systems is key to the allocation of funding and selection of projects.

Unfortunately, many state EQIP ranking systems are severely lacking. They often simply award more points for larger projects without weighing cost effectiveness, thereby overlooking well-designed small projects. Ranking systems have also failed to reward higher levels of performance or the use of innovative environmental management systems. Most state ranking systems lump together different project types (e.g., mixing a manure management project together with habitat restoration efforts) when, in fact, such comparisons are difficult at best.

Some states are taking steps to address this latter problem. For example, in 2003, North Carolina's EQIP program set aside $200,000 for special projects to protect the habitat of at-risk species—especially those associated with aquatic ecosystems and Piedmont prairies (an ecosystem type containing several endangered plants). In 2004, EQIP funded several projects for at-risk species. The state is now looking at improving delivery of the program to rare ecosystems and increasing the funds available for this purpose.

Although the USDA has established national priorities for EQIP, far too many states are not implementing them: North Carolina's experience is more the exception than the rule. In the Markham case, the NRCS at the local level does not yet award extra ranking points for range improvement projects that also benefit rare or endangered species, even though endangered species conservation as part of a livestock operation would seem to fit the program perfectly. To its credit, the NRCS leadership has taken steps to encourage its field offices to improve EQIP implementation, recently issuing a national directive emphasizing that ranking criteria must address levels of performance, innovation, and cost effectiveness. This may be having an impact even with regard to the Utah prairie dog, as the NRCS in Utah is now showing increased interest in addressing wildlife conservation through the program.

Further improvement in EQIP's implementation will depend in large part on ensuring that state and local decisions reflect the program's national priorities. Indeed, this is a tension within many Farm Bill programs. Many in the NRCS praise Farm Bill programs for being responsive to local landowner concerns and correspondingly taking a bottom-up approach to funding decisions. However, local decision making dilutes the potential of conservation programs to have a large-scale influence across watersheds and regions. Furthermore, local decision making can result in funding allocation choices driven more by trying to appease landowner demands than by trying to solve environmental problems. Given that there is far more landowner demand for EQIP and other Farm Bill program funding than there are available funds, NRCS has the ability to require measurable environmental benefits in return for funding.

The use of local decision making by the NRCS is motivated at least in part by the large (and growing) amount of EQIP funding available relative to limited staff resources in an agency already stretched thin in implementing a series of conservation programs. A bottom-up approach makes it easier for the NRCS to move funding out the door quickly. More highly coordinated efforts would likely take more staff time. It is fair to ask those who support increased funding for Farm Bill programs whether the NRCS (and, more broadly, the USDA) has adequate staff to implement the programs, even at current funding levels, in a way that maximizes the conservation benefits per dollar spent. Incentive programs do not run themselves.

One option already in practice is to privatize a portion of the program's implementation by funding private consultants and conservation groups to help landowners design conservation projects and enroll in Farm Bill programs. For example, Ducks Unlimited, Pheasants Forever, and other organizations are heavily involved in Farm Bill program implementation and landowner outreach in many states. In addition, technical service provider provisions of the Farm Bill have been used to fund outreach and program implementation by consultants and conservation groups. Besides increasing staff for program implementation, technical service providers may be able to offer specific expertise that the NRCS lacks (e.g., information about certain manure management technologies or the restoration of habitat for a specific rare species). However, barriers to the technical service provider's success include low reimbursement rates for some conservation work and excessive paperwork. Nonetheless, the creative use of the technical service providers program could go a long way toward satisfying gaps in program implementation.

The Conservation Reserve Program: Retiring Cropland to Restore Ecosystems The EQIP is a working lands program, meaning it targets working farmlands, ranchlands, and forestlands. The Conservation Reserve Program (CRP), on the other hand, pays landowners to take environmentally sensitive cropland and marginal pastureland temporarily out of production and restore grasses and trees. The CRP is the federal government's largest private lands conservation program, with an annual budget of about $2 billion and a current enrollment of approximately 34.7 million acres out of a Congressionally authorized 39 million acres (about 10 percent of the nation's croplands). Participating landowners receive both cost-share payments for undertaking specific conservation practices and annual land rental payments for a ten-year to fifteen-year contract period.

Originally, the CRP's primary purpose was to reduce soil erosion. Throughout time, the USDA and Congress have broadened the purposes of the program to include improving water quality and

quantity, wildlife conservation, and air quality. The vast majority of land enrolled in the CRP enters the program through a competitive general sign-up where the USDA ranks landowners' applications based on an Environmental Benefits Index (EBI) that awards points for wildlife, water quality, erosion control, and air quality benefits and the cost effectiveness of achieving those benefits. Thus, unlike EQIP, decisions made at the federal level, rather than at the state or local level, drive enrollment in the general sign-up.

The CRP's general sign-up has produced some substantial conservation successes. For example, in the late 1980s, farmers enrolled more than 8 million acres in the prairie pothole region of the northern Great Plains, a region containing a critical nesting habitat for a large percentage of North American ducks. The restoration of grasslands in the region under the CRP has helped to dramatically increase duck populations.

The landscape-level success in the Great Plains, however, has rarely been repeated elsewhere. In many regions, use of the EBI results in a shotgun approach to land enrollment in the program, reducing the potential benefits for wildlife populations achievable from targeted enrollments. Even when there are large concentrations of CRP lands in specific regions, the conservation practices undertaken through the program, such as the planting of nonnative grasses, may be inappropriate or counterproductive. For example, lands in the southern United States that could be reforested are being planted with nonnative fescue grasses, while in the grassland-dominated plains states, trees that hinder the restoration of native ecosystems are being planted.

Other lands have been planted to cover types, which, although native, have limited environmental benefits. For instance, hundreds of thousands of acres of dense loblolly pine plantations have been planted in the southern United States in recent decades. Those plantations produce ample supplies of pulpwood (potentially reducing regional pine pulpwood prices and thereby harming non-CRP landowners), but are a far cry from the biologically diverse, fire-maintained longleaf pine forests that once dominated much of the region. Recently, the CRP has offered increased incentives for reforestation of longleaf, and 200,000 acres have been planted, although loblolly pine is also still planted. As in this case, if the EBI were improved to prioritize restoration of rare native ecosystems, such as longleaf pine, then the program's wildlife conservation benefits could be enhanced significantly without sacrificing other goals of the program.

Improving the performance of the general sign-up will require overhauling the EBI. In particular, the EBI should award contracts to landowners who "plant the right things in the right places." The EBI should take into account the locational characteristics of lands, such as their occurrence within important watersheds, their proximity to other CRP lands, and their proximity to lands, held by public, private, or nonprofit entities, protected through other means. Finally, the EBI should give priority to landowners who agree to restore and manage rare native ecosystems—and the CRP should provide enhanced financial incentives for doing so.

Landowners can also enroll in the CRP outside of the general sign-up. Initiated in 1996, the CRP continuous enrollment program allows automatic enrollment of lands that serve important environmental functions, such as riparian buffers, filter strips, or grass waterways. Lands eligible for the continuous program do not have to compete in the general sign-up. In addition to cost share and rental payments, landowners can also receive enhanced incentive payments for enrolling lands and for carrying out conservation practices that produce significant environmental benefits. Four million acres are set aside under the CRP for the continuous program.

In 2003, the Bush administration authorized 1 million acres to be set aside in the continuous program for restoration of riverine floodplains, wetlands, and bottomland hardwood forests. Landowner participation has been tepid, particularly in the bottomland hardwood forest program, because of high crop prices and the refusal of the USDA to offer a full range of incentive payments to landowners. In 2004, the Bush administration announced a continuous enrollment program of 250,000 acres to benefit the bobwhite quail and other upland birds. Future continuous enrollment programs could be targeted to a number of other rare ecosystems and species. In addition, unlike the general sign-up, the continuous program and the additional financial incentives it can offer could promote more complex and intensive restoration activities required for some rare ecosystems.

Throughout the coming decades, the USDA should expand the continuous program by shifting a larger proportion of the CRP's 39-million-acre cap to it and by utilizing the enhanced incentives offered under the program to participating landowners. Doing so would significantly increase the environmental benefits of the CRP.

A second targeted use of the CRP, the Conservation Reserve Enhancement Program (CREP), began in 1997 with an effort in Maryland to restore riparian areas on farms for the benefit of the Chesapeake Bay. Under the CREP, states develop a program to address water quality, erosion, and wildlife habitat issues of state and national concern. The USDA provides 80 percent of the funding, with a nonfederal entity (typically the state) providing the remainder. States may automatically enroll up to 100,000 acres under the plan. Also, like the continuous program, the CREP focuses CRP dollars on specific environmental concerns, allowing for landscape-level conservation efforts in a way that the general sign-up does not. The CREP also provides the flexibility to address local needs—for example, allowing wider buffers necessary for wildlife corridors in Minnesota while focusing incentives in Maryland on efforts to address the looming threat of land development. To date, the USDA has approved twenty-nine CREPs in twenty five states, thereby authorizing some 1.56 million acres for enrollment, and has enrolled 571,921 acres. As with the continuous program, the USDA should allocate more acreage to the CREPs throughout the coming decades as a means of increasing the environmental benefits from CRP lands.

The need for a more targeted CRP is evident in the USDA's own recent Environmental Impact Statement (EIS) for the program. An examination of the distribution of CRP contracts contained in the EIS shows that there are many areas with rare plants and animals that receive little attention from the program (see figures 12.2 and 12.3).[4] Of course, this is due in large part to the location of marginal cropland. Still, improving the EBI in the general sign-up and shifting a higher proportion of CRP acreage into the CREP and continuous enrollment would increase the program's environmental benefits by focusing CRP contracts on more sensitive lands with greater geographic diversity.

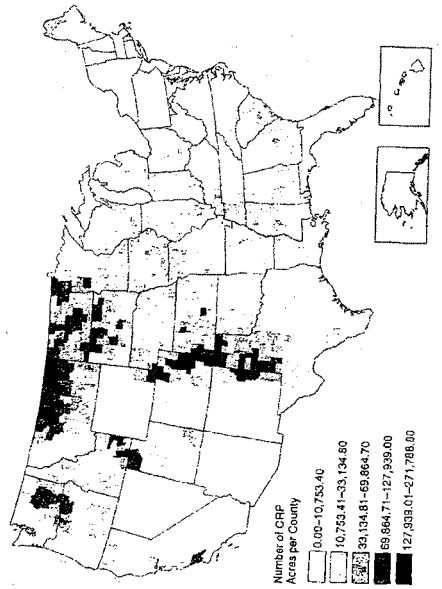


Figure 12.2.
Distribution of acres enrolled in the Conservation Reserve Program by county. (Map developed by Peter Black, Environmental Defense.)

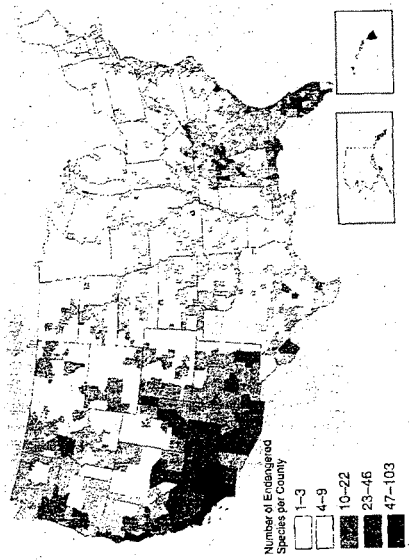


Figure 12.3.
Distribution of endangered species by county. (Map developed by Peter Black, Environmental Defense.)

The Conservation Security Program: Toward Green Payments
Both the EQIP and the CRP programs fund particular conservation practices on a portion of a landowner's land. One downside of such an approach is that it does not reward the landowner who is already implementing such practices. Moreover, a holistic approach would seek to improve the environmental performance of a landowner's entire operation and not just one aspect of it. Indeed, there is growing interest in so-called green payment programs that reward landowners for producing environmental services: for example, the 2002 Farm Bill authorizes the new Conservation Security Program (CSP), a nascent green payment program. Some observers believe that green payments could one day replace commodity support programs, so the CSP is attracting considerable attention.

Like commodity programs, the CSP is an entitlement program under which all eligible farmers and ranchers can participate if they meet the program's minimum criteria. As designed, the scope of this program could be enormous: in the United States, there are two million potentially eligible farmers and ranchers who own nine hundred million acres of land. For both practical and budgetary reasons (Congress, in fact, capped spending on the CSP in 2004 and 2005), the USDA has narrowed the program significantly in the near term to focus on a small number of watersheds. Given growing budget deficits, it is likely that the USDA, out of concern for the program's total cost, will continue to look for ways to limit landowner participation. One means to limit the total program cost is to require that program participants meet high environmental standards.

Most important of all, the aim of the CSP is not just to provide incentives for the adoption of new conservation practices, but also to reward good stewards for their existing management. The basic idea, as stated by the USDA, is to "reward the best and motivate the rest." This movement away from simply funding conservation practices and toward basing payments on measurable improvements in environmental management across a landholding is a dramatic change from other Farm Bill programs. Although very appealing, it will also be challenging to implement.

Rewarding existing stewardship requires measuring and comparing the environmental services produced by one landowner

to those produced by others. As the program is currently being implemented, landowners enrolling in the CSP will develop conservation security plans corresponding to three different levels (or tiers) of stewardship commitment. To be eligible for program payments, tier one participants are required to meet a minimum level of commitment; tier three participants are required to prepare a comprehensive conservation security plan addressing all resources of concern on the landowner's entire operation. As landowners move from tier one to tier three, the financial incentives also increase. The USDA has proposed using management intensity levels as a means of assessing a landowner's operation and determining the payments that the landowner should receive.

In 2004, the program's first year of implementation, the CSP was administered based on rules adopted by the USDA on an interim basis. Permanent implementation rules are due out in 2005. The program will continue to evolve throughout the coming years, which is important because, although the CSP is the 2002 Farm Bill's most innovative new program, the USDA and Congress will have limited experience to draw on to make changes during reauthorization of the Farm Bill in 2007. Still, although many questions around implementation of the program remain, many are looking to the CSP as a potentially trailblazing program. Growing questions regarding traditional commodity support programs may move agricultural policy toward green payment programs that reward landowners not for how much corn, soybeans, cotton, rice, or wheat they grow, but for the environmental benefits produced while growing these and other products.

The 2007 Farm Bill

In 2007, Congress will again rewrite the nation's agricultural policies when the current Farm Bill expires. The next Farm Bill will see continued efforts by the conservation community to focus its conservation programs on the most pressing environmental issues and to use those programs to reward landowners for higher levels of environmental stewardship. No doubt, environmental, conservation, and hunting groups will also press for increased funding for conservation programs.

But there's also a larger struggle surrounding the role of conservation programs in the Farm Bill. Ultimately, conservation programs and crop subsidies compete for the USDA's overall Farm Bill budget. At present, commodity programs clearly dominate, even though they are under increasing scrutiny. Although the U.S. Congress voted to phase out traditional subsidies in 1996, lawmakers reinstated and then actually *enlarged* subsidies when market prices for commodities fell in 1998. As a result, the federal government now spends about $20 billion annually on crop subsidies to farmers. Fiscal conservatives in Congress are increasingly concerned about the costs of support programs, especially in light of projected federal deficits. There is growing concern from protrade lawmakers about the trade impacts of U.S. farm subsidies and the growing potential of retaliatory tariffs on U.S. goods. The agricultural policies of the United States also have a significant negative economic impact on farmers in developing countries, who cannot compete with highly subsidized farmers.

Of course, the environmental repercussions of commodity programs are well documented and include the loss of native grasslands, forests, and other ecosystems; soil erosion; and the overuse of fertilizers—a practice that causes eutrophication of streams and rivers and is implicated in the creation of a so-called dead zone in the Gulf of Mexico. Farm support programs also raise significant equity issues across different size operations, different crops, and different regions. From 1995 through 2003, the top 10 percent of subsidy recipients collected 72 percent of total subsidy payments (see table 12.1).[5] As a result, despite the rhetoric of those who support traditional crop payments, subsidies do not generally benefit small farmers and may, in fact, be hurting them. There are also regional tensions at play in the Farm Bill debate, because agricultural dollars continue to flow overwhelmingly to a few states that grow the bulk of subsidized commodities (e.g., corn, wheat, rice, soybeans, and cotton).

Conservation programs, on the other hand, are a means for states that grow fewer subsidized commodities to receive money for their farmers and ranchers (not to mention forest landowners who are cut out of the Farm Bill almost entirely) who don't grow the large commodity crops. Increasing funds for well-designed conservation programs leads to greater regional equity in the Farm Bill and greater equity among different types of landowners (that is, those who don't grow traditional commodities).

Table 12.1.
Concentration of Total USDA Subsidy Payments from 1995 to 2003

Percent of Recipients	Percent of Payments	Number of Recipients	Total Payments 1995-2003	Payment per Recipient
Top 1%	23%	30,502	$30,545,197,439	$1,001,416
Top 2%	34%	61,004	$45,114,923,422	$739,540
Top 5%	55%	152,511	$71,664,948,825	$469,900
Top 10%	72%	305,023	$94,503,069,015	$309,823
Top 20%	87%	610,046	$114,431,349,923	$187,578

Source

Environmental Working Group, summarized from www.ewg.org/farm/.

If the range of concerns confronting traditional farm payment programs results in Congress making significant changes to them in the 2007 Farm Bill, then it is quite possible that the CSP, or some green payment program like it, could help fill the void left by receding subsidy payments. Like crop subsidies, the CSP is an entitlement program and could thereby help to support farmers, albeit by rewarding them for environmental stewardship rather than crop production. Unlike traditional subsidies, green payment programs, if properly designed, should be trade-neutral and environmentally beneficial. Congress could also expand conservation programs such as the EQIP and the CRP to make up for at least a portion of reduced crop subsidies. This, too, could be a boon to conservation, but only if the USDA has the resources to adequately implement those programs in a way that improves their environmental performance. One should not underestimate, however, the political wherewithal of the proponents of traditional commodity programs. Reforming agricultural policy in the United States will be a challenge. Yet a more environmentally friendly Farm Bill would benefit more farmers, with more diverse operations, in more regions of the country.

The pending struggle over Farm Bill dollars could not be more important, given the central role of private land conservation in achieving U.S. environmental goals. There are thousands of U.S. farmers who, like the Markhams, are willing, given the right incentives, to manage their lands in ways that produce significant environmental benefits—benefits that accrue to all.

Notes

[1]John Markham is a fictitious name chosen to protect the identity of an actual Utah rancher.

[2]Aldo Leopold, "Conservation Economics," first published in 1934 in *Journal of Forestry*, reprinted in Susan Flader, ed., *The River of the Mother of God and Other Essays by Aldo Leopold* (Madison: University of Wisconsin Press, 1991).

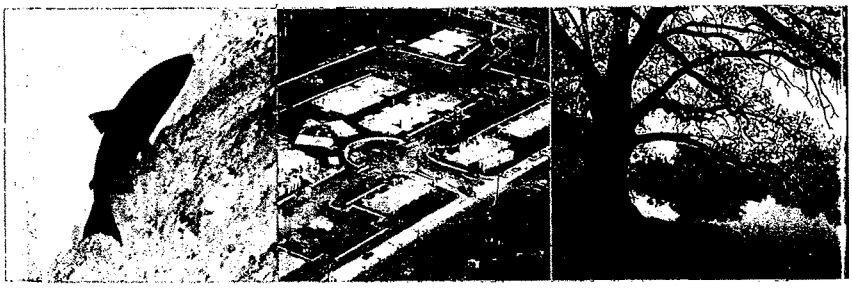
[3]The U.S. Fish and Wildlife Service's safe harbor program has proven successful in allaying landowner fears regarding restoring habitat for endangered species. For more information, see www.environmentaldefense.org/go/conservationincentives.

[4]See United States Department of Agriculture, Farm Service Agency, *Conservation Reserve Program: Final Programmatic Environmental Impact Statement* (January 2003), chapter 2, pages 33, 40, 64–66, available at www.fsa.usda.gov/dafp/cepd/epb/pdf/Final_PEIS_03/CRP%20Final%20PEIS%20Jan%202003/Summary.pdf.

[5]Environmental Working Group, "Farm Subsidy Database," available at www.ewg.org/farm/progdetail.php?fips=00000&progcode=total&page=conc.

Conservation & Biodiversity Banking

A Guide to Setting Up and Running Biodiversity Credit Trading Systems



Edited by Nathaniel Carroll, Jessica Fox and Ricardo Bayon

Ecological Considerations

Robert Bonnie and David S. Wilcove

Introduction

Six years ago, residential development in parts of Mobile County, Alabama, ground to a halt thanks to the presence of the threatened gopher tortoise and the Endangered Species Act (ESA). The county had ceased issuing permits for new septic systems on properties where gopher tortoises were present. Developers and landowners were furious. At the same time, the gopher tortoise population in the county was disappearing due to fragmentation and degradation of native longleaf pine habitat through conversion and neglect. The US Fish and Wildlife Service (USFWS) had little to offer in the way of practical solutions for landowners or tortoises.

Along came the Mobile Area Water and Sewer System (MAWSS), which owned longleaf pine forest with a diminishing though restorable population of gopher tortoises. Under a conservation banking agreement signed in June 2001, MAWSS set aside 220 acres of habitat as a gopher tortoise conservation bank from which local landowners could purchase credits for each gopher tortoise harmed by development. In exchange, MAWSS and USFWS agreed to relocate tortoises to the bank, restore habitat for the species, and permanently protect and manage the habitat – all pursuant to an ESA-approved habitat conservation plan that established the bank.

Since 2001, over 60 credits have been sold by the bank, allowing developers and landowners to develop lands formerly occupied by tortoises. The tortoises also appear to be benefiting. A monitoring programme at the bank site has documented successful reproduction by the tortoises for the first time in years. Moreover, MAWSS is considering expanding the bank significantly. Doing so would likely secure a large, viable population of tortoises for years to come.

While the Mobile conservation bank is still relatively young, its accomplishments thus far demonstrate the promise of conservation banking. Originally developed in the context of wetlands mitigation under the Clean Water Act, banking remains a controversial topic in environmental circles (Bean and Dwyer, 2000; Bauer et al, 2004; Fox et al, 2006). In theory, it holds the promise of providing greater flexibility

and efficiency to regulated interests, while producing better results for the environment. Yet wetlands mitigation banking, which operates under similar principles, has been fraught with controversy. Critics contend that the practice reduces pressure on developers to avoid harm to existing wetlands while yielding restored wetlands that fulfil few of the ecological functions of the destroyed ones (Zedler, 1986; Roberts, 1993). The goal of endangered species banking is inherently simpler – to mitigate harm to a particular species, rather than restore an amorphous set of ecological functions – but the issues are complex nonetheless.

Whether conservation banking lives up to its promise will depend on whether banks are designed in an ecologically sound manner that advances the recovery of endangered species as opposed to simply providing a means for regulated interests to address their legal obligations under the ESA cheaply and quickly. In this chapter, we focus on some of the ecological issues related to designing conservation banks. We do so largely by examining two species conservation banks, including the one in Mobile for the gopher tortoise and a second bank in southern Utah for the Utah prairie dog (UPD) – both of which we had a hand in developing. We briefly describe the banks and then focus on how several key scientific issues were addressed in them. Notably, the two examples we address in this chapter involve restoration of habitat at a bank site, resulting in no net loss of habitat. In fact, in both cases, there has been a net gain of habitat as a result of credit sales. Most conservation banks today, however, preserve and manage existing habitat that is already occupied by endangered species. Still, the issues we address are not unique to the two banks that we describe, although in some cases, the solutions may be. Nor is our review of these issues intended to be exhaustive. Rather, we address a subset of the issues that are likely to be faced by anyone involved in creating, managing or regulating endangered species conservation banks.

The UPD conservation bank

Like the Mobile bank, described above, the UPD conservation bank grew out of controversy. UPDs have suffered from over a century of persecution. Landowners and government officials sought to reduce their numbers, holding the prairie dogs responsible for damage to crops, forage and irrigation systems, and believing their burrows to be a menace to cattle, horses and farm machinery. They succeeded in doing so all too well. By one estimate, the total population of Utah prairie dogs dropped from roughly 95,000 in 1920 to 3300 by 1972 (USFWS, 1991), and the species was added to the endangered species list in 1973. Since then, its numbers have rebounded somewhat, but the species is far from secure.

In its 1991 recovery plan for the Utah prairie dog, USFWS identified three main populations, separated geographically and differing with respect to vegetation: the West Desert, primarily within Iron County; the Paunsaugunt region, most of which falls within western Garfield County; and the Awapa Plateau, which sprawls across parts of Garfield, Wayne, Sevier and Piute counties.

Development pressures around Cedar City, Iron County, in occupied prairie dog habitat spawned interest in conservation banking. USFWS had been allowing private

lands to be developed in exchange for habitat restoration and prairie dog relocation on public lands; the Service apparently did not see much of a future for Utah prairie dogs on private lands. Yet, despite the prevalence of public lands throughout Utah, most Utah prairie dogs (approximately 76 per cent) are found on state or private lands, not federal lands. Simply writing off conservation of habitat on non-federal lands was not a viable conservation strategy; it could not lead to a recovered prairie dog population.

The State Institutional Trust Lands Administration (SITLA), which manages some 3.7 million acres to generate revenue for Utah's public schools, saw an opportunity to increase the value of some of its less productive lands by selling endangered species credits. In particular, SITLA manages land on the Awapa Plateau that comprises virtually the entirety of one of the three designated recovery populations for the Utah prairie dog. Unfortunately, the prairie dog population on the plateau has declined greatly in recent decades and shows little sign of improvement. Remote and largely undeveloped, with little in the way of tourist infrastructure, valuable minerals or productive farm- and ranch-land, the Awapa Plateau is hardly an economic engine for the State of Utah. SITLA, however, realized that it could earn revenue from prairie dog conservation in these otherwise isolated lands if it could market conservation credits.

In September 2005, after a long period of negotiation, a conservation bank was established on three sites totalling about 800 acres on the Awapa Plateau. SITLA has placed these sites under perpetual conservation easements and established an endowment fund to underwrite management activities beneficial to prairie dogs, to be carried out by the Utah Division of Wildlife Resources. SITLA earns credits in two ways. First, it received some credits for protecting and managing an existing, albeit much diminished population at one of the sites. Second, SITLA is able to earn additional credits by restoring UPD populations at the two sites that currently lack them or by increasing the population at the site where they still occur.

The bank opened with 77 credits to sell. Rapidly expanding Iron County immediately purchased all the credits and intends to resell them to developers. The selling price was $1636 each, plus $200 per credit for the perpetual endowment fund, a price determined by a third party that appraised the sites. As habitat restoration generates more credits, SITLA can sell those credits or use them to mitigate its own development projects elsewhere in the range of the Utah prairie dog. SITLA also has the option of expanding the bank to generate still more credits.

With this background on the gopher tortoise and UPD conservation banks, we now turn to some of the key ecological issues that had to be addressed in each case.

Ecological considerations of conservation banking

In a legal sense, the success or failure of a conservation bank is determined by whether it fulfils the requirements for mitigation set forth in the ESA. In the case of banks that are intended to mitigate for habitat losses on private lands, the ESA requires that the person or institution engages in the take of a listed species 'to the maximum extent practicable, minimize and mitigate the impacts of such taking', and that 'the taking

will not appreciably reduce the likelihood of the survival and recovery of the species in the wild…' In these instances, the ESA requires a written habitat conservation plan (HCP) outlining how mitigation will be carried out. In many instances, it may be necessary for the owner of the conservation bank to also develop a conservation banking agreement which spells out how credits will be sold and what conservation activities will be undertaken at the bank. Some conservation banks provide mitigation for habitat losses due to activities carried out, funded or permitted by the federal government. In this case, the ESA requires that such activities 'not jeopardize the continued existence' of the species, and mitigation may then be required through an incidental take statement from USFWS. No HCP is required in such instances, but the bank owner may need to develop a conservation banking agreement. In either case, fulfilling the requirements of the ESA via the creation of a conservation bank requires significant scientific analysis. Below, we discuss nine key issues.

Species suitability for banking

Perhaps the first question to ask regarding conservation banking is whether it is suitable for all species. The answer, we believe, is no. For example, establishment of conservation banks for wide-ranging species, such as grizzly bears or Florida panthers, seems highly impractical due to the vast amount of habitat needed to sustain breeding populations of such species, and the remote likelihood that private banks can provide sufficient land. The home range of a single grizzly bear, for example, can cover 30–160 square miles. Likewise, conservation banking for anadromous fish or other wide-ranging aquatic species presents problems since such species are vulnerable to habitat loss throughout entire river systems and watersheds. Transferring that loss of habitat from one place to another within a river basin is unlikely to result in bona fide benefits to the species in question.

Moreover, since conservation banks typically involve the management and/or restoration of habitat, a lack of knowledge of the habitat needs of a particular species can render that animal unsuitable for banking. If there is significant uncertainty about the life history, habitat preference and/or management of a species, then conservation banking becomes very difficult, if not impossible. Banks require establishment of habitat guidelines and population goals, the determination of mitigation ratios, effective management and monitoring – all of which can be difficult even for species that are well understood. The phrase 'if you build it, they will come' loses meaning when no one knows what the 'it' is.

That said, there is always scientific uncertainty about the ecology of a given species (especially so with endangered species). In the case of the gopher tortoise, when the Mobile conservation bank was established, scientists had not yet precisely quantified the amount of habitat required for breeding and foraging by individual gopher tortoises. While the recovery plan provided some guidance, neither it nor any other published document could answer the critical question of how much habitat per tortoise should be protected and managed at the bank. To obtain at least a provisional answer to this question, a number of prominent scientists were consulted as the bank was being developed.

An understanding of the most important threats facing a species is also important.

For example, populations of Utah prairie dogs, like all prairie dogs, periodically are wiped out by sylvatic plague. Deliberate isolation of discrete populations, therefore, might be part of a comprehensive recovery strategy – an important consideration in siting conservation banks. Of course, if the populations are isolated from each other, then care must be taken to make each population large enough to maintain itself over time without the benefit of immigration from outside.

Knowledge of the dispersal capabilities of the species in question is also useful for determining whether colonists are likely to interact with species on preserved habitats or discover restored habitat at conservation banks. For banks that rely on preservation of existing habitats, interaction with populations on other lands may be critical for maintaining a viable population at the bank site. Dispersal is also an issue for banks that are created by restoring habitat. Is the species in question likely to colonize the restored habitat on its own, or will it need to be translocated to the site? If the latter, then the availability of 'extra' individuals for translocation and the ability of wildlife officials to safely translocate them become critical issues. In the case of the endangered red-cockaded woodpecker, which inhabits fire-maintained pine forests in the southern coastal plain and piedmont, the improvement of translocation methods, through provisioning of artificial nest cavities and movement of juvenile birds, has made conservation banking much more feasible because new populations can be established rapidly.

In the case of the Utah prairie dog, early translocation efforts met with little success, but over the past decade, improved techniques, including supplemental feeding and water, use of retention cages and predator control, have boosted the success rate. Nonetheless, even with these improvements, translocation of Utah prairie dogs remains highly labour intensive, increasing the cost of creating conservation banks.

Where banks involve restoration of habitat, perhaps the most important factor in determining the suitability of a species for conservation banking is simply whether its habitat can be restored in a reasonable time frame. We suspect that a disproportionate share of conservation banks that focus on restoring habitats in the future will be created for early-successional species because habitats for such species may be among the easiest to restore.

Restoration versus maintenance

Most endangered species find their way onto the endangered species list due to habitat loss (Wilcove et al, 1998). It follows, then, that rebuilding their populations will require restoration of habitat. Ideally, conservation banking would result in no net loss of habitat and, preferably, would actually increase available habitat over time through mitigation ratios that require more habitat to be restored than taken (see below, 'Currency and mitigation ratios').

However, there may be instances when allowing take of an endangered species in exchange for permanent protection of existing, occupied habitat is acceptable. Wilcove and Chen (1998) found that at least 60 per cent of US endangered species were imperilled by invasive species or fire suppression. For such species, it is necessary to both protect the existing habitat against development, and also actively manage the site. Although the ESA prevents private landowners from undertaking actions

that harm listed species, it does not force them to maintain their property in a condition suitable for listed species. In other words, it cannot compel a landowner to burn a portion of her property to maintain a particular successional stage or to root out an invasive plant that is out-competing the native vegetation (Bonnie, 1999). Under such circumstances, it is conceivable that a listed species would be better off with a smaller amount of habitat that is properly managed compared with a larger amount that is neglected. If so, then the creation of a conservation bank based on the long-term management of currently suitable habitat (via an endowment fund, for example) would be worth pursuing. Indeed, the majority of conservation banks created thus far preserve pre-existing habitat. A primary rationale for these banks is that they guarantee both the protection and proper management of existing habitat and, in so doing, contribute to the long-term viability of the species in question.

One could also imagine a banking arrangement that exchanges small, isolated, remnant populations of species for permanent protection and management of strategically located parcels of prime, occupied habitat. In raising these issues, we do not mean to endorse categorically habitat-maintenance banks (just as we wouldn't categorically endorse banks that produce credits through restoration). Rather, we think the issue is one that should be considered on a case-by-case basis.

In Mobile, the conservation bank already had a small population of about ten tortoises. Establishment of the bank will maintain their existing habitat and restore enough additional habitat to establish a viable population. Likewise, in Utah, the Awapa Plateau contained a small number of prairie dogs prior to establishment of the bank. The bank will contribute to the recovery of the UPD both by protecting and managing its habitat and by restoring habitat for a larger population.

Currently, most mitigation banks generate credits largely through the preservation of occupied habitat. However, even in these instances, habitat management and restoration activities can boost populations. Given the importance of habitat management and restoration to the conservation of endangered species, we believe that in most cases banking will involve a combination of preservation and restoration activities. What is undeniably true in all cases is that the bank must have an endowment or other source of ongoing funding sufficient to cover all of the management activities needed to sustain the species in question.

Suitability of conservation banking sites

A key question in judging the ecological benefits of a proposed conservation bank is the suitability of the bank site. Typically, larger bank sites are preferable to small ones, and sites contiguous to other protected lands are preferable to isolated ones. However, smaller bank sites that serve to link larger populations could be particularly beneficial to recovery efforts. Similarly, banks can be a means to build up a small, faltering population that is currently not viable but is considered important to the long-term recovery of the species. This is exactly the case with the UPD conservation bank on the Awapa Plateau.

A further consideration in judging the value of a proposed bank is whether the bank owners are likely to be able to properly manage the species at the site. For example, proximity to urban populations might restrict the use of prescribed fire on bank sites where fire is an important tool for maintaining suitable habitat. The attitudes of neighbouring landowners should also be considered, especially in regions where there is strong resistance to endangered species conservation. Safe Harbor agreements and other tools can be used to provide assurances to those neighbours that the presence of a bank in the neighbourhood will not increase legal restrictions on nearby properties.

Finally, a growing concern in siting conservation banks is the effect of climate change on the persistence of populations at the site. This may be a particularly important consideration for banks situated near the southern or upper altitudinal limits of a species' range. Drought, flooding and water-availability issues related to climate change should also be considered. These are probably best tackled on a case-by-case basis given the difficulty in predicting the magnitude and impact of climate changes in specific regions.

Service area

A key consideration in designing a conservation bank is determining the 'service area' that can be served by the bank. For example, in the case of a species with a large range, is it appropriate to use credits from a conservation bank in one state or region to offset habitat loss occurring in another?

In wetlands mitigation banking, the service area of mitigation banks is an especially important question because many of the services that wetlands provide, such as water filtration or flood control, are locally important. When wetlands are destroyed, a strong argument can be made that mitigation must occur within the same watershed so as to compensate for the loss of local services (Bean and Dwyer 2000).

The case with endangered species is different. While endangered-species' habitat may provide aesthetic or other benefits to a particular locale, the goal of conservation efforts is to preserve enough viable populations so as to assure the continued existence of the species. And while the geographic distribution of species is important to preserve genetic diversity and to insure against catastrophic losses due to disease or natural disasters, the particular locale of any one population is less important. Thus, one can argue that for many species, it may be entirely defensible to allow take of habitat in one region in exchange for mitigation in another, assuming the conservation of genetic resources.

In the case of the Mobile gopher tortoise conservation bank, the bank service area was limited to Mobile County. This decision was not made on biological grounds. Instead, Mobile County was one of the few areas where enforcement of the ESA with respect to gopher tortoises was actively occurring. In fact, the County government was enforcing the Act by refusing to issue septic-system permits for new homes on tracts where active tortoise burrows were found, for fear of running afoul of the law. As a result, demand for incidental-take permits that would allow development in gopher tortoise habitat was largely confined to Mobile. Perhaps more important, the Mobile Area Water and Sewer System (MAWSS), which owned the bank site, was a public utility governed by commissioners appointed by local politicians. There was a strong incentive for MAWSS to be responsive to local problems. (The need to provide local mitigation to landowners and developers probably also encouraged the MAWSS commissioners to set a reasonable price for mitigation credits.)

SITLA's conservation bank on the Awapa Plateau is a different story. In this case, the demand for conservation credits came largely from developers and landowners around Cedar City, Utah, nearly at the south-western corner of the Utah prairie dog's range. The Awapa Plateau on the other hand, is located in the north-eastern quadrant of the species' range. However, because the Awapa Plateau is designated as one of three recovery areas, its significance to the recovery of the UPD is immense. USFWS, therefore, determined that a large service territory was warranted, and granted SITLA permission to engage in trades throughout the range of the prairie dog.

Determination of a bank's service area has important implications for the economics of conservation banking. A narrowly proscribed service area may limit the demand for credits and could make conservation banking less financially attractive for the owner of the bank. In the case of the UPD, land values are much lower on the Awapa Plateau than near Cedar City. This difference in land values makes conservation banking financially attractive both for developers and SITLA (for example, see Bonnie, 2004), provided they can do so across the two regions. Had USFWS restricted the service area of the bank to only the Awapa Plateau, trades between Cedar City and the Awapa Plateau would not have been possible, and the bank would have been an economic bust. A counterbalancing consideration, however, is to ensure that there are also ample incentives available to landowners to conserve UPDs around Cedar City in order to ensure the continued existence of UPDs in that portion of the species' range. While economic considerations might seem out of place in a chapter about ecological issues related to conservation banking, if the economics of banking aren't viable for both seller and purchaser, the ecological questions become irrelevant.

Currency and mitigation ratios

One of the more challenging issues in designing conservation banks is determining the currency that will be traded. In other words, how does one translate the amount of habitat that is destroyed or the number of individuals of a listed species that are killed ('take' in the parlance of the ESA) into an amount of habitat or number of individuals that will be protected or restored at the bank site? The most straightforward approach is to use acres of habitat as the currency for mitigation, which is what most banks do (Fox and Nino-Murcia, 2005). Thus, for example, destruction of ten acres of habitat would require that ten acres of habitat be protected or restored at the bank. For most species, acres of habitat makes sense, but it is often a crude measure of the impact of habitat destruction on species' populations.

Take the case of the red-cockaded woodpecker, which is a territorial, cooperatively breeding bird that constructs its cavities in living pines. These cavities are typically arrayed in 'clusters' and the woodpeckers forage in the surrounding mature pine forest. Destruction of 200 acres of occupied habitat could result in the loss of 4–5 breeding pairs if the habitat is of particularly high quality, or it could result in the loss of only one breeding pair if the habitat is marginal. Likewise, at the conservation bank, protection of 200 acres of habitat does not provide a reliable picture of the value of those mitigation activities to the woodpecker because the acres do not necessarily equate to the bird's population. Thus, using simple acreage as the currency

is often not a good measure of the actual impacts of habitat destruction nor of the mitigation activities undertaken at the bank.

Because the woodpeckers live in discrete breeding groups, developing a 'currency' other than acres of occupied habitat should be quite straightforward. Because woodpeckers live in discrete breeding groups, a logical solution would be to use the number of breeding groups as the currency. Yet, even in this case, one must decide how much habitat is required to be protected and managed for each breeding group at the conservation bank in order to be confident that the bank is truly mitigating for the loss of breeding pairs in the service area. The USFWS recovery plan for the red-cockaded woodpecker defines minimum standards for woodpecker breeding and foraging habitat. Thus, the currency might be better defined as breeding groups of woodpeckers with enough surrounding, suitable habitat at the conservation bank to meet the minimum guidelines in the recovery plan. (This, of course, raises the question as to whether the guidelines in the recovery plan are sufficient to ensure healthy populations of this endangered species – a question we will not address here, but which is nonetheless an important consideration in designing a currency for conservation banking.)

In the case of the gopher tortoise, the MAWSS bank translates the number of animals taken at the development site – in this case, tortoises, not breeding pairs – into a measure of occupied habitat at the conservation bank. Because there were no habitat guidelines in the gopher tortoise recovery plan, bank planners estimated the total population of tortoises that could be sustained at the bank (i.e. the bank's probable carrying capacity) by drawing upon the existing scientific literature and the opinions of tortoise experts. One option would have been to simply take this population number and subtract the existing number of tortoises at the bank to calculate the number of credits that could be sold. This, however, would not allow natural growth of the population because the target density of tortoises would have been reached through translocation of tortoises to the site once all credits were sold. So, instead, USFWS and MAWSS chose to base the number of credits that could be sold on 80 per cent of the calculated carrying capacity. This had two effects. First, it allowed for natural growth of the population because it meant that there was additional habitat that could be occupied by juvenile tortoises. In addition, reducing the number of credits to be sold increased the amount of habitat that would be protected for each tortoise harmed at the site where development was to occur.

UPD population tallies are based on the number of adults estimated by visual surveys conducted in the spring. Because UPD populations can fluctuate significantly from year to year, regulators and bank managers use a multi-step process to determine how many UPDs are at a given site (for the purposes of determining credits). First, the bank takes the highest population count from the previous five years of spring surveys as its tally of adult UPDs at a given site. It then multiplies that value by a factor greater than 1.0 to account for juvenile prairie dogs (which are typically underground when the surveys are taken). The resulting number is then used as the estimate of the number of UPDs in a given locale. USFWS requires that two credits be purchased for each prairie dog taken at the development site. Each credit corresponds to one acre of protected, managed habitat at the conservation bank. Thus, like the gopher tortoise bank, the UPD bank translates the number of

individuals taken into a number of acres of occupied habitat that must be protected and managed at the bank.

In the case of the woodpecker, prairie dog and tortoise, surveying individuals is relatively straightforward, and biologists can produce accurate estimates of individuals (or, in the case of the woodpecker, breeding groups). Determining precise numbers for other listed species is more difficult. For example, the flatwoods salamander, like the woodpecker and tortoise, is a resident of the longleaf pine ecosystem, but it spends a significant portion of its life underground, making surveys very difficult. In a case like this, the currency should probably be based on the number of acres of occupied habitat that are taken instead of any estimate of the number of individuals taken. A similar situation might apply in the case of species whose populations fluctuate significantly from year to year. Thus, the number of acres of Karner blue butterfly habitat that are destroyed by a given activity may be a more meaningful measure of that activity's impact than the number of butterflies killed; acres rather than individuals would be the best currency.

In an ideal world, a more precise approach to determining the currency would be to quantify the impact of the loss of habitat on the viability of the species in question. One would then calculate the appropriate amount of habitat to restore at the bank in order to ensure that the trade did not diminish the species' prospects for survival. Thus, if the loss of habitat lowered the survival prospects of an endangered species by 2 per cent, then mitigation activities should be required to boost the survival prospects by at least 2 per cent. Such a system would take into account the spatial configuration and quality of the habitat and the population size and structure of the species in question. The rapidly maturing field of population viability analysis (see Groom et al, 2006) is devoted in large part to just these sorts of calculations. However, population viability analyses typically require data on the fecundity, survivorship and dispersal abilities of the species across a range of habitat types, and these data can be very difficult and expensive to obtain. In a study examining the status of 36 imperilled plants and animals in central Florida, Turner et al (2006) concluded that only about five had been studied in sufficient detail for a population viability analysis. Thus, for many species for many years to come, biologists will have to construct mitigation strategies based on less precise tools.

A cruder though more practical means to accomplish the goal of ensuring the environmental integrity of conservation banking could be through use of mitigation ratios that account for the location and importance of various habitats. For example, for habitat that is isolated and contains a small population of the target species, one could foresee a mitigation ratio close to 1:1. On the other hand, the destruction of habitat in areas that are important to recovery, either because of their proximity to existing populations or to areas of public land that currently have or are planned to have large populations, would require larger mitigation ratios (e.g. three acres to be protected at the conservation bank for every acre of habitat taken).

Two aspects of the Mobile conservation bank are relevant to this discussion. First, as noted earlier, in determining the currency used, it was decided that the total number of credits available would correspond to 80 per cent of the carrying capacity of the bank for gopher tortoises. This had the effect of requiring a greater than 1:1 mitigation ratio. That is, for every acre of occupied habitat taken, on average 1.25 acres of habitat would be protected and restored. Second, the bank was specifically designed to compensate for the loss of small, isolated tortoise populations. Indeed, there are few large populations remaining in the county. However, the ESA permit authorizing the bank specifies that it cannot be used to mitigate the loss of larger populations in more pristine habitat. USFWS is also given oversight responsibilities to ensure that this limitation is enforced. In theory, if a Mobile County developer came forward with a proposal to take a large number of tortoises in outstanding longleaf-pine habitat, he would not be able to use the Mobile bank and would, in effect, have to avoid take or find alternative mitigation.

Given the fact that all habitat restoration projects, including conservation banks, involve some measure of uncertainty and unpredictability, one could make the case that all mitigation ratios should substantially exceed 1:1. In other words, developers should always restore more than they destroy, not just to advance the recovery of a given species, but to account for inevitable hitches in restoring habitats and successfully translocating animals. One caution, however, is that as the mitigation ratio rises, the economics of conservation banking become more difficult. In the case of the prairie dog, the cost of producing credits at the bank is relatively inexpensive, so the 2:1 ratio is both scientifically and economically defensible. However, in other instances, if developers or those seeking credits are required to pay enormous sums to conservation banks, then USFWS will be under greater political pressure to help developers skirt the rules or to simply not enforce the ESA. In our experience, this is an important consideration. Mitigation ratios should be set using the best, objective scientific information. (This means, of course, that such ratios should be subject to change over time as new scientific information is collected.) If the best information is used, then issues related to the economics of conservation banking can be openly discussed and evaluated by purchasers, sellers and the public.

Ownership of the bank

The question of who owns the bank might not seem to be relevant to the subject of ecological considerations in conservation banking, but it is. In a number of cases, USFWS has permitted habitat losses on private lands to be mitigated by restoration activities carried out on federal lands. For example, red-cockaded woodpecker mitigation has been allowed on the Croatan, Kisatchie and Ocala national forests. Under section 7 of the ESA, federal lands are already required to be managed for the benefit of endangered species. It is fair to ask, then, whether any real additional habitat protection is gained by allowing mitigation on those lands.

While officials in USFWS contend that conservationists should not care who owns the habitat, in fact, the opposite is true. Mitigation onto federal lands is artificially cheap because the federal government does not have to pay the full cost of habitat protection since the land is already effectively protected from development (no one is building shopping malls on the national forests). In the case of the red-cockaded woodpecker, mitigation costs per breeding pair on federal lands are as low as $1000 to $4000, while on private lands they can run well over $100,000. This creates a perverse incentive in that landowners who might otherwise manage their lands for endangered species can take advantage of cheap mitigation onto federal

lands and thereby rid their own property of endangered species. If doing away with ESA regulations is virtually free, why not avail oneself of it?

In the case of the Mobile bank, the land is owned by MAWSS, a public utility. In the case of the UPD, the land is owned by SITLA, a state agency vested with the authority to manage those lands for the benefit of Utah schools. The difference, however, is that neither MAWSS lands nor SITLA lands are federal, and for purposes of the ESA, they are treated exactly the same as private lands. Thus, the landowners (Mobile County and the State of Utah, respectively) bear all the costs of habitat protection and restoration. We see no reason to permit conservation banking onto federal lands.

Timing of credit sales

An important question in the design of conservation banks is when the sale of credits can begin. This is an issue primarily for those conservation banks where habitat restoration is a key activity. Clearly, the best situation from the perspective of the species is one that allows 'take' only after the conservation bank has successfully restored both the habitat and the species in question (with 'success' defined in terms of a reproducing population of the species). That wasn't the case for the red-cockaded woodpeckers that were translocated to federal lands following the loss of their habitat on private lands. Mitigation was deemed successful if the institutions involved in the mitigation effort tried to establish a breeding pair over the course of 3–4 years, whether or not such efforts succeeded.

In wetland banking, it is common for portions of credits to be released based on a performance schedule agreed to with the US Army Corps of Engineers. For example, 30 per cent of credits are released once soil and hydrologic criteria are met, 30 per cent are released once plant populations are established, and the remainder released once colonized by certain indicator species. Because most conservation banks created to date involve the preservation of existing wetlands, the successional release of credits has not been widely used. However, in many cases, bank owners can acquire additional credits after proving that they have substantially improved habitats or demonstrated increased populations of indicator species.

In the case of the UPD bank, once credits for maintaining the existing habitat are sold, SITLA can earn additional credits by increasing the population of UPDs at the bank. But with UPD populations prone to major fluctuations, when should credits become available? The bank addresses this problem by allowing the sale of newly generated credits only after specific population thresholds are passed (e.g. increases of more than 50 adult UPDs during a spring count) for two successive seasons.

In the case of the gopher tortoise, the baseline population at the bank prior to its opening was ten tortoises. Given the long time to maturity and typically low reproductive success of tortoises, growth rates of that population are expected to be very low. So, simply waiting for the population to expand before any credits can be sold is impractical. Also, because of slow growth in tortoise populations, it is important to rescue and translocate tortoises from sites where development will occur. Thus, the bank allows credits to be sold once the habitat is restored and tortoises have been relocated, but it does not require the bankers to wait until the translocated tortoises have reproduced. Some ecologists will probably disagree with this decision, but it

does reflect the economic realities of creating a conservation bank for a species like the gopher tortoise. We would argue that the timing of credit sales has to be tailored to the specific needs of the species. Where the biology of the species allows for it, the preference should always be to have the species well-established and reproducing at the bank before credits are sold.

Monitoring

Monitoring must be built into the ongoing operations of each conservation bank – both with respect to compliance with the terms of the agreement and with respect to the effectiveness of all activities related to habitat restoration, management and species restoration. It is the responsibility of USFWS to ensure that conservation banks are carrying out the restoration and management activities required under the permit that each bank receives from the agency. Beyond compliance monitoring, however, it is important that each bank monitors the progress of restoration and management activities. Each conservation bank should also have a habitat restoration and/or population goal that it strives to meet.

In the case of the tortoise, it is instructive to look at how the species has been treated in Florida, where it is not federally protected but where a state law requires that tortoises in the path of development be relocated to safe sites. It appears that relocations in Florida have been haphazard, with little thought given to where tortoises are moved. As a result, many of the translocated tortoises have fared poorly. The poor track record in Florida caused many scientists to view the Mobile bank with scepticism. In response to their concerns, USFWS and MAWSS developed a monitoring programme that includes periodic surveys and radio-telemetry of existing and translocated tortoises at the bank. In addition, the habitat conservation plan establishing the bank empowers a scientific oversight committee to review monitoring results. Monitoring to date has shown that tortoises have, in fact, remained at the site and have begun to reproduce. It bodes well for the future of the tortoise at the bank.

In the case of the UPD, there is uncertainty with respect to the impacts of livestock grazing on prairie-dog populations. Thus, the SITLA bank incorporates a carefully designed study of the effect of different grazing intensities on UPDs. We encourage both bankers and regulators to think of conservation banks as mini-experiments in restoration ecology, and to design the banks and the monitoring programmes with the goal of improving our knowledge about endangered species. Unfortunately, across the country, monitoring of conservation banks is haphazard and limited, and it is not at all clear whether these banks are supplying the habitat for which they were established (J. Fox, pers. comm.).

Permanence

The USFWS policy on conservation banking is that bank habitat must be protected in perpetuity. As a general rule, both management and protection of the habitat at the conservation bank can be made permanent through a conservation easement, deed restriction or similar mechanism. In the case of the UPD, for example, SITLA is required to donate a conservation easement on the three sites within the conservation bank to the Utah Division of Wildlife Resources prior to the sale of credits. In the case

of the gopher tortoise, the permit issued by USFWS requires permanent protection, although MAWSS was not required to actually put a deed restriction on the property. Since the property is managed as a buffer for a reservoir, it is not clear that such a restriction is required (but it would certainly not have been harmful).

Are there instances when less-than-permanent protection is adequate? As noted previously, a number of endangered species utilize early-successional habitats created by disturbances such as fire. In the absence of such disturbances, the habitat becomes unsuitable for them. An argument for less-than-permanent protection could be made in cases where permanent protection at the conservation bank raises the costs of mitigation so high that landowners seeking habitat credits are more likely to just wait out the species and allow natural succession to get rid of their ESA liability. If, for example, a conservation bank required 50 years of habitat protection and management for a species that requires prescribed fire every 2–3 years, there might be an argument that recovery would be advanced even in the absence of permanent protection. Such a case might also argue for government assistance in retiring development rights on the property. Thus, mitigation dollars could purchase long-term protection and management while government funding could make the protection permanent. Whether or not such an approach makes sense cannot be decided in the abstract, however; it will depend upon the ecology of the species and its habitat and the economic forces acting on the landowners.

Conclusion

Evident in much of our discussion of ecological issues associated with conservation banking is the inevitable tension between ensuring that banks contribute to the recovery of endangered species and ensuring that they are economically viable. While in theory the prohibitions against habitat destruction under the ESA are severe, USFWS has a spotty record in enforcing the Act. When political pressure on the agency builds, it is more likely to buckle. A well-designed, economically feasible bank can reduce this pressure while simultaneously advancing the conservation of the species in question.

Thus, in designing banks, conservationists should adhere to scientifically defensible guidelines while at the same time striving to ensure that banks are economically viable. Ecological considerations should ultimately revolve around the long-term recovery needs of the species. For those species with up-to-date recovery plans, conservation banking may help to achieve recovery goals. Where recovery plans do not exist or are out-of-date, USFWS should work to design banks in such a way that there is a high degree of certainty that recovery efforts will be bolstered by the activities of the bank. Moreover, all banks should be seen as an opportunity to gain new insights into the management of endangered species and their habitats. Ultimately, everyone – from the regulated community to the environmental community – will benefit if the market for credits is designed in such a way to help move species off the endangered species list.

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JOHNSON MAKES WINNING DEBUT AS ASTROS BEAT PIRATES, 6-2. PAGE 1B.

The Dallas Morning News

Texas' Leading Newspaper | Dallas, Texas, Monday, August 3, 1998 | www.dallasnews.com | Section A

Safe harbors' foes have ulterior motive

While Congress fails to reach consensus on rewriting the Endangered Species Act — a law that has been awaiting reauthorization for six years — Interior Secretary Bruce Babbitt is pushing administrative policies designed to balance the needs of species and private landowners.

ROBERT BONNIE

Debate surrounding the law continues to be polarized, largely because of fierce disputes over protection of vanishing species on private lands. Since most endangered species are found on private lands, new approaches are needed to encourage landowners to help.

Mr. Babbitt is actively promoting provisions of the act that permit the loss of some endangered species habitat on private lands in exchange for conservation activities by landowners.

Environmentalists are skeptical, fearing too much habitat destruction in exchange for too little conservation. Some property rights activists also are opposed, but on far more dubious grounds.

Take the case of a recent plan to encourage habitat restoration for two endangered birds, the golden-cheeked warbler and the black-capped vireo, in central Texas. Seeking to address ranchers' fears, the Texas Department of Parks and Wildlife last year proposed a "safe harbor" plan to give private landowners greater flexibility in how they utilize their land.

Under safe harbor, landowners voluntarily agree to improve endangered species habitat on their property. In return, they are relieved from any additional liability under the Endangered Species Act if the population of endangered species increases on their lands.

Though landowners have embraced similar plans in the Carolinas and southern Texas, the state of Texas recently was forced to withdraw the plan for central Texas in the face of significant opposition fueled by a campaign of misinformation.

What happened? Property rights activists, led by the Competitive Enterprise Institute in Washington, D.C., labeled the Texas plan "the greatest threat to property rights Texas landowners have faced."

An alarming statement, to be sure, but one that overlooks that safe harbor is voluntary.

A who's who of property rights groups joined the institute's campaign. None hesitated to stretch the truth. For example, they stated that the plan "will authorize (Texas Parks and Wildlife) to implement a land-use planning scheme across ... a 23 million-acre area." Land use planning is not voluntary; safe harbor is.

Equally outrageous was a statement that the Texas plan "would increase the amount of land locked-up under the (Endangered Species Act) in Texas by more than 1 million acres."

The opposite is true. Safe harbor would actually limit the amount of land subject to the act's provisions by preserving landowners' ability to use land currently unoccupied by species for grazing or any other profitable activity.

The most ironic aspect of the groups' opposition is that they have been especially vocal about precisely the problems safe harbor addresses. Opponents of the Endangered Species Act have declared, rightfully, that it has discouraged landowners from protecting endangered species for fear that doing so would increase their regulatory liability. Safe harbor solves this problem.

Endorsements for safe harbor have come from the American Farm Bureau Federation, the Western Governors' Association and several forest products companies.

So why would property rights activists oppose a voluntary plan that is responsive to landowner concerns and which has support from many landowners?

It's not that they fear safe harbor plans won't resolve landowners' concerns, but that they will do precisely that. The institute and its friends aren't interested in solving endangered species problems. Instead, they are invested in emphasizing problems (even where they don't exist) as a way to advance their ultimate goal of gutting the Endangered Species Act.

For years, the institute has chided environmentalists for being more interested "in saving the Endangered Species Act than in saving endangered species." In fact, it is apparent now that it and other property rights groups are more interested in destroying the act than in promoting real-world solutions for landowners and endangered species.

Robert Bonnie is an economist with the Environmental Defense Fund.

VIEWPOINTS

Viewpoints Editor Bob Moos

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The Atlanta Journal-Constitution / ajc.com Monday, Oct. 30, 2006 / A17

Program will give longleaf pines a fighting chance

By ROBERT BONNIE

The federal government recently announced a new and unprecedented initiative to restore up to a quarter-million acres of native longleaf pine forest in nine Southern states, including almost 45,000 acres here in Georgia.

Longleaf pine forests once played a vital role in the economy and environment of the South. The forests covered as much as 90 million acres across nine states, from Virginia to Texas. Today only about 3 million acres remain. As the forests disappear, so do the species that live in them, such as bobwhite quail, wild turkey and many endangered plants and animals.

The longleaf restoration initiative will provide economic incentives and technical assistance to farmers and other landowners, so they can restore longleaf pine forests on marginal farmland where these trees once grew. This initiative will help landowners reduce soil erosion, improve water quality and establish wildlife habitat.

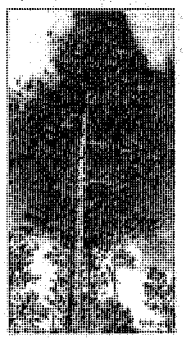
Farmers already want to be good stewards of their land; this program will help provide them with the resources they need to achieve that goal. This Conservation Reserve Program, administered by U.S. Department of Agriculture's Farm Service Agency, wisely reaches out to farmers and other private landowners for their help in protecting this disappearing habitat. We at Environmental Defense think it's a good plan, but we also think it should be only the beginning.

Robert Bonnie is a forester and economist for Environmental Defense, a nonprofit organization in Washington.

We may soon have the opportunity to do much more if we pass a far-reaching — and practical — farm bill.

The CRP isn't the only program that assists private landowners who want to help protect the environment. In fact, nationwide, the U.S. Department of Agriculture spends about $3 billion annually to help farmers, ranchers and forest owners be better stewards of their land. While that may seem like a lot, the demand from these landowners far outstrips the money available. Moreover, solving some of this country's most pressing environmental issues — such as clean water, wildlife conservation, producing renewable energy — depends on what farmers, ranchers and forest owners do on their land. We need to do more. That's where the farm bill comes in.

The farm bill is sweeping national legislation that determines all of the U.S. agricultural policies. Congress is due to pass a new version of the farm bill in 2007. Many lawmakers hope to place greater emphasis on passing a farm bill that provides more resources for encouraging stewardship of farms, ranches and private forest lands.



G.M. ANDREWS / AP

Only about 3 million acres of longleaf pine forests remain, down from as much as 90 million acres.

U.S. Rep. Ron Kind (D-Wis.) has introduced the Healthy Farms, Foods and Fuels Act. Kind's bill would dramatically increase loan guarantees for renewable energy development on farms, double incentives for farmers to protect drinking water supplies and make other environmental improvements, provide funding to restore nearly 3 million acres of wetlands and protect 6 million acres of farm, ranch and forest land from sprawl. It would also expand programs to help farmers switch to producing organic foods, increase the amount of healthy foods in our public schools and help the elderly and low-income Americans shop at farmers' markets.

This bill will become part of the farm bill debate in the next year, so it deserves the serious attention of all Americans.

Our farmers, ranchers and forest landowners don't just produce food, fiber and wood; they are also key to preserving a healthy environment — including clean air and drinking water — because half of the United States' total acreage is farmland. We should give them the help they need to do that.

Report from Washington

Habitat Trading for Red Cockaded Woodpeckers: Enhancing Recovery, Reducing Conflicts

Robert Bonnie
Michael Bean

The endangered red-cockaded woodpecker (*Picoides borealis*) was once a common inhabitant of the pine forests of the southern United States. Red-cockaded woodpeckers (RCWs) are cooperative breeders that excavate nesting cavities in living, mature southern pines and require the sparse midstory conditions created by periodic, low-intensity fires. While RCW groups can be found in most species of southern pine, the bird prefers longleaf pine (*Pinus palustris*), once the dominant tree species on some 74 million acres of forestland (Frost 1993; Hooper 1988). Reasons for the RCW's decline include loss of nesting habitat, fire suppression, and habitat fragmentation.

Recovery efforts for the RCW are focused on 15 recovery populations designated by the U.S. Fish and Wildlife Service (USFWS) and corresponding to the distribution of federal lands in the southeast. However, private lands can and should play a role in recovery of the species for two important reasons. First, for some designated recovery populations the federal land base is insufficient to support the 500 active groups necessary for recovery. Second, in several recovery areas there are gaps between populations on public lands where the intervening land is private. For example, in the Sandhills of North Carolina, the populations on Fort Bragg Military Base and the state-owned Sandhills Game Lands are separated by several miles of private land.

While many private lands provide critical RCW habitat, preservation costs for some landowners can be significant. Thus, the dilemma facing the USFWS is how to balance the needs of both RCWs and private landowners.

This paper proposes a habitat "trading" scheme for RCWs that will reduce private land conflicts while advancing recovery efforts in a cost-effective manner. Under this proposal, landowners who wish to "take" existing RCW habitat will mitigate the loss by purchasing the rights to habitat created or restored on other private lands. The proposal focuses habitat protection efforts on recovery populations while at the same time insuring that the costs of mitigation are relatively low so that habitat trading is an economically viable alternative.

Opportunity Costs of RCW Preservation

The cost of RCW preservation is an opportunity cost because the landowner often must forgo revenue from the most profitable use of a forest property. Opportunity costs equal the development and/or timber value of a property minus the value as constrained by RCW preservation. On land where forestry is the profit maximizing land use, the opportunity costs of RCW preservation are a function of a number of mostly site dependent factors, including tract size, stand age, timber prices, site quality, and management objectives (EDF 1995; Cleaves et al. 1994; Roise et al. 1991; Lancia et al. 1989; Judge et al. 1984). Costs of RCW management on some tracts may be small where management is directed at sawtimber production and/or where landowners capture significant non-timber values from older stands of fire-maintained southern pine.

Previous studies have demonstrated that RCW preservation has rising marginal costs (Boyd and Hyde 1989; Judge et al. 1984); that is, costs to protect individual RCW groups in some forest stands will be small while costs in others will be larger. Of course, opportunity costs can change over time depending on landowner objectives, timber markets, development pressure, and other factors. Nonetheless, the variability in landowner opportunity costs has important policy implications. A policy that exploits the cost differences among landowners will achieve RCW preservation on private lands in a far more cost-effective manner than one that ignores differences.

Safe Harbor

A common complaint about the Endangered Species Act (ESA) is that it penalizes landowners who practice good stewardship on their lands by imposing land use restrictions should threatened or endangered species take up residence. In the case of RCWs, landowners have both an incentive to harvest timber prematurely and a disincentive to burn their forestland lest woodpeckers colonize their property (EDF 1995). In response to this criticism, the Environmental Defense Fund and the USFWS developed a "safe harbor" habitat conservation plan to remove the disincentive to improve or restore habitat for listed species.

Safe harbor was developed for RCWs in the Sandhills of North Carolina and is now being applied in other regions and for other species. Under the voluntary program, landowners agree to maintain the baseline habitat conditions on the property at the time of the agreement and to implement management measures aimed at restoring or improving RCW habitat. These measures can be as simple as agreeing to lengthen rotations and/or to burn portions of the property. In return, the USFWS confers upon the landowner the ability to incidentally take all habitat above the property's baseline conditions. For example, if the landowner has two groups present at the time of the agreement, then s/he has a baseline comprised of the nesting and foraging habitat requirements for two groups. If in the future, the landowner should have three groups present, s/he is free to incidentally take one group. Thus, a

safe harbor agreement essentially freezes a landowner's legal obligations under the ESA, thereby removing any regulatory impediment to habitat restoration.

Under safe harbor, those landowners who are willing to provide additional RCW habitat can do so and still maintain the right to harvest timber or develop their property. A safe harbor agreement, however, does not solve the dilemma of private landowners and developers who have high preservation costs per group and who therefore wish to incidentally take RCWs pursuant to a habitat conservation plan (HCP) under section 10 of the ESA.

Some landowners have been allowed to mitigate the destruction of RCW habitat simply by paying for the cost of translocating birds to nearby federal lands. Such a policy is flawed for several reasons. First, given the responsibility of the federal government to recover listed species, private landowners should not pay the costs of provisioning RCW cavity trees on federal lands. Second, merely shifting birds from one location to another does not address the fundamental problem of the woodpecker: lack of suitable habitat. Third, translocation will in fact undermine efforts to preserve habitat on private lands by reducing mitigation costs to such an extreme that landowners will have no incentive to maintain or preserve habitat through the safe harbor program.

An alternative to the translocation strategy is to expand upon the safe harbor program by allowing landowners who wish to take RCW habitat to purchase the rights to safe harbor groups created on other private lands. Once purchased, these groups would be granted protection under the ESA. Habitat trading would complement federal efforts to protect RCWs, provide incentives to create new RCW habitat on private lands, and lower the costs of the RCW recovery.

Habitat Trading

Transferable credit programs have been used frequently as a market-based alternative to traditional command-and-control environmental regulation. Perhaps the best known example of a transferable credit program is sulfur dioxide emissions trading instituted as a part of the 1990 Clean Air Act amendments. Under the program, companies can choose to meet sulfur dioxide emission standards through self compliance or by purchasing pollution credits from other utilities which have exceeded pollution control requirements. Underlying such a program is the fact that different utilities have different compliance costs per ton of pollution. Companies with high costs of compliance are likely to purchase credits from utilities with lower compliance costs. The end result of transferable rights programs is that environmental objectives are met at a reduced cost to the regulated community.

Similar to electric utilities, landowners with RCWs on their property have varying costs of compliance. And, just as some utilities with more modern pollution abatement technology may be able to meet sulfur dioxide standards with room to spare, landowners with low RCW opportunity costs may be willing to produce additional RCW habitat under the safe harbor program. Given the right price, these safe harbor landowners will also be willing to relinquish their incidental take rights for RCW groups created under safe harbor. Thus, a landowner seeking an incidental take permit can purchase rights from a safe harbor landowner whose baseline responsibilities are increased accordingly.

The underlying principle for RCW habitat trading is that the "take" of private land habitat should be permitted only when there is a comparable habitat gain made elsewhere; recovery of RCWs should not be adversely affected by such trades. Since maintenance of RCW habitat requires prescribed fire, the recipient landowner would agree to periodically burn the property as a part of the mitigation agreement. The costs of such management would be embedded in the purchase price of the safe harbor groups. Since landowners are not legally required to implement proactive management for listed species, habitat purchased through this proposal would actually receive a higher level of protection than that afforded under the ESA.

Trading among landowners outside of or within recovery populations would require a 1:1 ratio—one new group protected for every group lost. However, for mitigating landowners outside of designated recovery populations, a mitigation ratio of less than 1:1 might be permitted for trades into recovery populations. For example, a landowner who wishes to remove two groups from a property located outside a designated recovery population might be permitted to purchase a single group from a landowner whose property is within a recovery population.

While a mitigation ratio of less than 1:1 would necessarily cause a net loss of habitat, such a ratio is justified where mitigation improves the probability of survival and recovery of a designated recovery population. Thus, the gain of a single group within a recovery population may more than offset the loss of two groups outside a recovery population.

Reducing the mitigation ratio for habitat purchases within a recovery population will increase the demand for private land habitat in these areas. This will in turn create an incentive for landowners within a recovery population to engage in habitat restoration. Moreover, a less than 1:1 ratio will reduce the costs of mitigation. This is important not only because it reduces conflicts under the ESA, but also because it provides incentives for landowners with high preservation costs to choose mitigation rather than simply "waiting out" the loss of RCWs through passive neglect or fire suppression.

Two other strategies will further reduce mitigation costs without adversely affecting RCWs. Increasing the number of landowners enrolled in the safe harbor program will increase competition for mitigation dollars and thus reduce the mitigation price. Also, allowing interstate trades will increase the number of possible mitigation sites and thereby increase competition for mitigation dollars.

RCW habitat trading will not work if transaction costs and landowner uncertainty are high. In order to keep transaction costs low, the USFWS should consider an overarching HCP

for the entire range of the RCW which establishes a simple protocol for habitat trading. This HCP would negate the need for individual HCPs for each trade. Such an overarching HCP will also assure landowners that the USFWS is committed to trading and this will in turn reduce landowner uncertainty. The USFWS could also facilitate trading by implementing a competitive bidding process for mitigation dollars. Finally, the USFWS would reserve the right to prohibit trading away groups it deemed critical to recovery efforts.

Some private lands with RCWs may have other listed species present. Under the proposal outlined here, the loss of multiple species habitat would have to be met by protection of comparable habitat created through a multiple species safe harbor agreement on some other parcel. In practice, this would be difficult to implement because the recipient safe harbor property would have to have the same habitat conditions as the property seeking incidental take permits. Even so, a landowner with multiple species could choose to mitigate the destruction of RCW habitat by purchasing RCW safe harbor rights. Such a trade would be only one component of a broader HCP which addressed the habitat losses of other listed species found on the property. As the safe harbor program is expanded to other species, it may be possible to mitigate the loss of multiple species by purchasing habitat on several properties if a single suitable property cannot be found. Until this happens or until there is a mechanism under the ESA to conduct interspecies habitat trading, a multiple species trade may be beyond the scope of the framework presented here.

Conclusion

Several statewide coalitions comprised of a broad array of interests are currently discussing habitat conservation planning for RCWs. As these coalitions formulate strategies for dealing with RCWs on private lands, they will need to examine a framework for mitigating the loss of private land habitat. One such strategy, translocation of birds from private onto public land, reduces landowner conflict at the expense of RCW recovery and private land conservation efforts. The habitat trading proposal outlined here also reduces ESA conflicts by lowering the costs of RCW mitigation to private landowners. However, more importantly, this habitat trading proposal complements federal recovery efforts by giving landowners enrolled in the safe harbor program, especially those within recovery populations, an incentive to restore and protect habitat.

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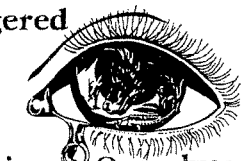
Robert Bonnie and Michael Bean are, respectively, Economist and Chairman for the Wildlife Program at the Environmental Defense Fund, a national, non-profit, research and advocacy organization that seeks practical solutions to a broad range of environmental problems.

Saving Endangered Species



Saving Ourselves

Saving Endangered Species, Saving Ourselves is one of several traveling exhibitions available from the Bell Museum of Natural History, University of Minnesota.

For information about this exhibit or others such as ***Exotic Aquatics*** or ***Peregrine Falcon: Return of an Endangered Species***, contact:

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Saving forests, earning credits

Many environmentalists are implacably opposed to awarding credits under the Kyoto Protocol for "avoided deforestation" But **Robert Bonnie** and **Mike Coda** argue that the Protocol can and should address the issue

One of the key areas of disagreement between the United States and the European Union regarding rules to implement the Kyoto Protocol centres on carbon sinks: specifically the degree to which industrialised countries be able to count land use activities that legitimately reduce greenhouse gas (GHG) emissions and/or increase carbon storage in soils and trees towards meeting their GHG emissions targets.

While much of the debate centres on the treatment of forests in the United States, the US and the EU also disagreed on the role of forests in the Protocol's Clean Development Mechanism (CDM).

In the climate talks in The Hague last November, several European negotiators argued that the issues of measurement uncertainty, the reversibility of carbon sequestration and a potential influx of cheap GHG credits from land-use projects should exclude land use from the CDM (where industrialised nations can earn carbon credits by investing in projects in developing countries that reduce or avoid GHGs).

But this is a mistake. The CDM holds the promise of addressing tropical deforestation, which currently contributes approximately 20% of global human-induced GHG emissions. By placing an economic value on threatened, standing forests through inclusion in a GHG emissions trading market, the CDM could spur efforts to reduce deforestation and, in so doing, protect the climate.

In a recent article in *Environmental Finance* (December 2000–January 2001, page 14), Richard Sandor argued that while reforestation and afforestation should qualify under the CDM, avoided deforestation currently poses too many problems for inclusion.

We would argue that both the EU's concerns and Sandor's can clearly be addressed with appropriate accounting rules and environmental standards. Such rules have already been put forward by some of the developing countries that favour the inclusion of avoided deforestation in the Protocol and by various environmental groups, including our own. In fact, the Intergovernmental Panel on Climate Change (IPCC) report, *Land Use, Land Use Change and Forestry*, released last year, strongly suggests that forestry and land use projects can be designed in ways that provide lasting benefits to both the atmosphere and the forest.

There are two commonly feared perverse outcomes from the inclusion of avoided deforestation in the CDM. First is that the inclusion of conservation of threatened forests will precipitate a tidal wave of cheap credits that will swamp the market. This is a far-fetched scenario.

The Nature Conservancy has been involved in a substantial reforestation project in Bolivia, the Noel Kempff Climate Action Project. This project provided funding to protect almost 1.5 million acres of endangered forest with the carbon benefit measured against data-driven baselines for the region. The rate per acre of avoided carbon emissions in the project would require an area 2.5 times that of Central America to generate credits equal to 10% of the US reduction commitment under the Protocol.

Given the difficulties of putting together projects, significant impacts on the market from including forest protection appear unlikely. Thus, it would not hold the market back if negotiators decided to cap the amount of credits available through this mechanism at a relatively low level in the first commitment period.

The other major concern is that landowners may attempt to claim credits for forests that are not really threatened. This can be addressed by limiting projects to areas where there is a clear trend, supported by data, of deforestation.

European negotiators may have seen this issue as similar to the argument over land use in the US. In that case, however, the US sought credit for domestic land use activities projected to occur whether or not the Protocol enters into force. In the case of forests and the CDM, the projects would have to be additional to what would happen otherwise.

So what to do? Some analysts, such as Sandor, have argued for a compromise: allow reforestation activities to count under the CDM and wait to include conservation of threatened forests for a later commitment period. But such a compromise offers the worse possible outcome: providing no incentives to protect forests and address the emissions resulting from their destruction yet incentivising the levelling of more native forests to clear the way for new plantations.

In this way, the Protocol could in fact spur the loss of additional forest land. Such an outcome is far from impossible: witness Indonesia where government incentives spurred the clearing of native forests and the establishment of pulpwood plantations.

The negotiations in The Hague did nothing to increase our confidence that such an outcome can be easily avoided. The compromise text offered by president Jan Pronk ruled out threatened forest protection while including reforestation projects in the absence of any standards or rules ensuring GHG benefits. Such a system would have allowed reforestation projects on recently deforested lands without any accounting of the emissions from their deforestation.

While reforestation projects can be designed with substantial environmental benefits, the risks of perverse outcomes from including reforestation in the Protocol are undoubtedly greater than those associated with the inclusion of conservation of threatened forests.

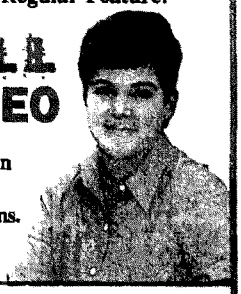
If there's one silver lining from our collective failure in The Hague it is that the international community has a chance to take a step back and reassess the role of forests in climate change. 14 million hectares of tropical forests – and countless species, and the way of life of indigenous peoples – are lost annually.

Ultimately, forest destruction happens because people and countries are often unable to benefit fully from the services to the global environment provided by their standing forests. The Kyoto Protocol provides a unique opportunity to value forests as forests. Those of us who believe that environmental markets are a superior way to address climate change should stand and fight for the world's forests.

Robert Bonnie is an economist at Environmental Defense, a New York-based environmental organisation, and Mike Coda is vice president of the climate change programme at The Nature Conservancy, a conservation organisation based in Arlington, Virginia. E-mail: Robert_bonnie@environmentaldefense.org, mcoda@tnc.org

A New Regular Feature!

GRILL the CEO



Krysta Harden answers your tough questions.

Q: How will the planned changes in NACD's League City Service Center operations impact services to districts?

A: NACD has undertaken a comprehensive review of its service center operations and, in an effort to expand the available product offerings while dramatically reducing on-going operating costs, will be announcing the launch of a brand new online store. The online store will feature an expanded product offering as well as familiar service center voices to help customers with their product selections. The goal is to provide additional products as efficiently as possible. Look for additional information on the launch of the store on NACDnet.org and in *News & Views*.

Q: Why is NACD changing from a calendar (Jan. 1 to Dec. 31) to a fiscal (Oct. 1 to Sept. 30) year for budgeting and financial reporting purposes?

A: NACD has adopted a change to an Oct. 1 to Sept. 30 fiscal year to coincide with the federal government's fiscal year, to ease the annual financial statement audit burden on limited staff resources and to enable the Association to have audited financial statements available to Board members in time for the annual meeting.

Q: Is the Avectra system up and running?

A: Yes! Since the system was installed in early 2002, NACD has been retooling its financial and database system operations to take advantage of this powerful system. The Avectra system is used by NACD on a daily basis to track detailed information about our member conservation districts and state and regional leaders and partners. Phase III of the project has been on hold for financial reasons but is a priority activity for NACD as resources become available. This, the most exciting part of the project, will allow NACD to track detailed information about the great work of conservation districts and will allow various "communities" to share their knowledge and experience in an access controlled environment.

A New Regular Feature!

CALL the CEO

Krysta Harden answers your tough questions.

Q: What is the status of NACD's relationship with USDA's Natural Resources Conservation Service ?

A: Excellent! NACD and NRCS signed a cooperative agreement in June that calls for our two organizations to continue our historical working relationship. NACD and NRCS together will continue to address key issues that impact Conservation Districts and our mutual customers. Communication between NACD and NRCS is as strong as ever with regular calls and meetings with Chief Knight and his staff. NACD values its relationship with NRCS and will make sure it stays effective and productive for both organizations.

Q: Will NACD committees meet this year?

A: As with 2003, budget constraints are in place for 2004 and funding for committee meetings is limited. The cooperative agreement between NACD and the Forest Service does allow for a meeting of the Forest Resources Committee, currently scheduled for August. The agreement between NACD, the Forest Service and the Bureau of Land Management provides funding for Environment and Resources Policy, Grazing and Public Lands, Urban Community Resources and Water Resources Committees. All four committees are involved in implementing our biomass projects. There is also funding available for a meeting of the chairs of the five committees mentioned above plus the chair of the District Operations Committee, which will take place with agency officials in Washington, DC. NACD is still seeking possible funding for a face-to-face meeting of the District Operations, Agricultural Land Resource, and Education Committees. The Stewardship Committee will use revenues generated from sales of materials to support a meeting of the group this year.

Q: Who are the NACD staff and what are their responsibilities?

A: Below is an alphabetical list of NACD staff and titles according to location. Key responsibilities and contact info are listed at: www.nacdnet.org/directory/Who2call.htm.

NACD (Washington, DC):
Naomi Davis, Receptionist; **Bob Doucette**, Director of Operations; **Rich Duesterhaus**, Director of Government Affairs; **Krysta Harden**, Chief Executive Officer; **Eugene Lamb**, Senior Policy Analyst; **Laura McNichol**, Government Affairs Grassroots Coordinator; **Darlene Robbins**, Director of Communications; **Karen Williams**, Member Data Manager

NACD (Regional Offices):
Deb Bogar, Regional Representative, Northern Plains and Southwestern Regions (Denver, CO); **Christa Jones**, Regional Representative, North Central Region (Franklin, IN); **Beth Mason**, Administrative Assistant

NACD (League City, TX):
Maxine Mathis, Customer Service; **Alice Westmoreland**, Production Service

CTIC (W. Lafayette, IN):
John Hassell, Executive Director; **Karen Scanlon**, Communications Director; **Tammy Taylor**, Systems Manager; **Jessica Woods**, Orders/Accounting Specialist

A New Regular Feature!

Ask the CEO

Krysta Harden answers your tough questions.

Q: Why should I attend NACD's annual meeting?

A: NACD's 2005 meeting will be its 59th annual meeting-almost 60 years of bringing the top leaders in conservation together for a week of discussion, debate and learning. The annual meeting is the best opportunity all year long to network with colleagues, to be exposed to fresh ideas and new technologies in conservation, and to hear from national leaders within the federal government and the private sector about emerging trends and policy priorities. It is a week not to be missed if you are passionate about conservation and want to put your passion to work!

Q: Why do customers have to prepay for products purchased from the Service Center Online store?

A: NACD recently adopted a policy of requiring prepayment for products to help better manage its finances while meeting payment expectations of its online store partners. This policy is in line with industry standard sales practices. We accept Visa, Mastercard and American Express as forms of payment (preferred) as well as prepayment by check (although this method results in shipping delays). We have received positive feedback on the online store and are confident our customers will adapt to the new policy while enjoying the expanded product offerings.Please visit the store at **www.nacdnet.org**.

Q: Can you explain NACD's budget process and how district officials can stay apprised?

A: NACD officers and executive board members have pledged to conduct an open and transparent budget process. Our 2005 budget process got underway in August when the NACD officers received staff budget requests. A mailing to the NACD Board of Directors, Executive Board and state leadership followed in early September regarding the status of the 2005 budget. The officers then met in mid-September to review the status of the 2004 budget and to develop a draft 2005 budget for approval by the executive board at their October 8 meeting. Once revised and approved, the executive board will then recommend a final 2005 budget to the board of directors at their October 9 meeting.

Every region has a voice on the executive board and every state has a member and alternate on the board of directors. Each district official is welcome to provide input to their state and NACD leadership regarding our budget process.

A New Regular Feature!

Ask the CEO

Krysta Harden answers your tough questions.

Q: This is my first opportunity to attend the NACD annual meeting. What does the registration fee cover?

A: The registration fee for NACD's annual meeting helps to cover the variety of expenses necessary to present a very professional and worthwhile meeting. Examples include the costs of having high profile speakers, educational workshops and entertainment, as well as covering mundane costs like audio visual equipment, supplies and planning resources. Again this year there will be a welcome reception for all attendees, and for the first time, a free Internet café for meeting participants. NACD is committed to keeping our registration fee in line with expenses and to ensuring it is a good investment for all attendees. We encourage all districts supervisors, directors, managers, employees and partners to join us in Atlanta in February. Our 2005 annual meeting is shaping up to be one of the best sessions yet!

Q: Is NACD involved in conservation education?

A: NACD is very involved in conservation education in varying ways and at varying levels. Education is often most effective at the local level and NACD has long supported the development and use of NACD stewardship materials in the classroom. Envirothon is the cornerstone education program for conservation districts and NACD continues to be a strong advocate and partner in this program. (The last edition of *News and Views* featured a front page story on the 2004 winners.) NACD is also involved in conservation education by hosting a college-age intern in our Washington office. Each semester, NACD works with the Washington Center to identify outstanding young adults to learn and work in our office. Many of our interns have gone on to impressive jobs in environmental, conservation and education fields. For example, our 2004 summer intern, Alisha Spears, recently joined the water resources staff of the Tennessee Valley Authority. NACD also works in educating and informing decision makers at all levels and hopes to use the U.S.Landcare initiative to help further educate the general public regarding the good works of private landowners.

Q: How is implementation of the Regional Support Plan progressing?

A: Very well. Region leaders have taken this process very seriously and are making careful and thoughtful progress.The North Central and Northern Plains are moving foward with current staff and have very strong workplans that are well underway. The Southeastern Region had a number of resumes submitted during their search and will conduct interviews the first weekend of December. That region hopes to have a full-time staff person on board in early January. The Southwestern and Pacific Regions have workplans and are moving forward with getting a person hired by early January, as well. The South Central Region is currently accepting resumes for a part-time person and will conduct interviews in mid-January. The Northeastern Region is close to finalizing a workplan and will be moving forward with their activities.

This marks the debut of a new column by NACD CEO Krysta Harden who will share with readers in each issue her unique perspective on the national association that she oversees and that represents the nation's 3,000 conservation districts.

Here she will attempt to make her thoughts...

Krysta Clear

2004 was a year of change for NACD and for me. Although we could focus on the challenges and trials of the year, I choose to instead be thankful for the successes and progress we made in conservation. In spite of times of tight budgets and political fighting, were able to make significant contributions for our natural resources. Highlights of the year include implementation of the Conservation Security Program (finally), the establishment of new grant programs for innovative technologies and cooperative partnerships, new enrollment opportunities in the Conservation Reserve program, a fix of the long standing technical assistance problem, and the codification of a new exciting partnership for NACD with the Bureau of Land Management and the Forest Service. All things considered, it was a good year for conservation and for conservation districts.

2005 offers many of the same budget and policy challenges, but the new year will also bring new opportunities and possibilities for NACD and districts. We will have a new Secretary of Agriculture and other major appointments that will be critical to the development of national land use and conservation policies. The elections brought several fresh faces to Capitol Hill, and we have the opportunity to establish additional champions of conservation as there are several new committee chairmen and ranking members that will oversee conservation-related legislation.

Internally, your national association is becoming stronger and more effective. We have additional regional staff to help expand our outreach and strengthen our voice. We are improving our own budget situation and making better financial decisions. We are forming exciting coalitions and developing productive new partnerships.

While success will not come easily in 2005, I am excited about what we can accomplish with the power of a unified voice and a consistent message. We have the power...to make change, to protect what is important to us, to influence decisions and to get results.

2005 is going to be a great year for conservation- I can just feel it! We are off to a terrific start with our annual meeting in Atlanta. It is a perfect opportunity to refocus our attention and energies on the challenges that lie ahead.

See you there!

NACD CEO Krysta Harden shares with readers in this column her unique perspective on the national association that she oversees and that represents the nation's 3,000 conservation districts.

Here she will attempt to make her thoughts...

Krysta Clear

Does anyone know you are doing a good job if no one knows what you are doing? I would an answer "NO."

Since joining NACD, I have been frustrated with our lack of a consistent external communications program. We do so many great things and make a difference in conservation policy and programs, yet many people are not aware of our activities.

NACD has a long established internal communications system that is recognized and used by our districts and partners. *News &Views*, *eNotes*, *Conservation Briefs*, as well as *BufferNotes* and *Forestry Notes*, all provide excellent outreach to our membership and partners. However, we have not placed the same emphasis on external communication, allowing others to "fill the space" with their messages.

While many may not see the problem in this situation and may even question the need for focusing on external audiences, I would challenge that we have the responsibility to provide a voice for local conservation at the national level. If NACD does not provide that message, others will fill the void and may not necessarily represent our concerns or our interests. And, many doing the talking may actually have conflicting messages that could set the tone and direction of the conservation debate.

One of my key goals is to improve NACD's outreach and communications by establishing additional opportunities for promoting NACD's activities and priorities with targeted audiences including decision-makers, concerned citizens and the media. We are making a significant difference at the local level and in the national policy arena, but we have to tell our story if we expect others to recognize our efforts and follow our lead.

As we move forward in revitalizing NACD, I believe we must make external communications the priority that our internal outlets already enjoy. It should not be a choice between the two but we must instead insist our communications tools compliment each other and re-enforce the strong conservation message of NACD.

NACD CEO Krysta Harden shares with readers in this column her unique perspective on the national association that she oversees and that represents the nation's 3,000 conservation districts.

Here she will attempt to make her thoughts...

Krysta Clear

I grew up in a very flat part of South Georgia. No mountains or even hills. So as a child when I visited Providence State Park or what we call the "Little Grand Canyon" in Richland, Georgia, I had much to see and learn.

One of my favorite memories was my mother teaching my younger sister and me about echoes. I had read and seen in movies how sound could bounce off of tall buildings or mountains to make an echo, but had never had the experience myself.

Mama stood in the bottom of what was to me a very deep canyon and yelled my name. I just loved hearing it echo many times over. I begged her to do it again and again. The sensation of hearing the message repeated again made me feel important and powerful!

Being a part of a national association like NACD is being part of an echo. Our message is repeated over and over to customers, community leaders, policy makers and partners. The power of that "echo" and its message for protecting, preserving and conserving our natural resources makes NACD a critical voice in Federal policy deliberations.

During our recent Spring Legislative Conference, over 250 conservation district leaders and partners echoed similar messages through out the Halls of Congress. Explaining, educating and repeating the important messages of districts and NACD. The results of the conference and the power of the echo will be felt through out the entire year because the message continues through activities and actions at the district, state and national level.

NACD remains strong and is getting stronger because we use our collective voice to make a difference for conservation. Be a part of the difference, be part of the echo for conservation!

NACD CEO Krysta Harden shares with readers in this column her unique perspective on the national association that she oversees and that represents the nation's 3,000 conservation districts.

Here she will attempt to make her thoughts...

Krysta Clear

A district official called this week to tell me that her district was going to pay quota for the first time in a long time. She told me the district leadership was pleased with the changes at NACD and wanted to be a part of what was happening with the national association. She was so excited and I was too!

Sure it is just one district out of almost 3000. However, having even one district recognize the renewed commitment of NACD leadership and staff to move the national association in a more positive and pro-active direction....it is exciting. And, to modify a popular television commercial...it takes one district at a time to make this organization strong, self-sufficient and effective.

By paying quota a district invests in the many programs and commitments of NACD. It helps support the activities of the association including (but not limited to):

- Qualified national AND regional staff
- Activities and travel of elected officers and Executive Board members
- Development of stewardship, education and training materials
- Communication tools including the website, News & Views, eNotes and Briefs
- A voice in the national debate regarding the direction of conservation programs and policies.

Yes, I do believe every district's involvement is important to the viability and success of NACD. A district paying quota for the first time in a long time is significant and makes me smile. I know that homes are built one brick at a time and NACD is made stronger one district at a time.

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Krysta Clear

NACD hosted its first Congressional staff tour in August with the support of the South Dakota Association of Conservation Districts—what a success! The staff tour has been high on my list of priorities since coming to NACD and I hope to make it an annual tradition.

We toured western South Dakota for three days, educating a group of key leaders about critical conservation issues impacting farmers, ranchers and concerned citizens in the region. The staffers interacted with landowners, our partners and district employees and officers.

Sure, it was an investment of time and money and it took months of careful planning. However, it was well worth all of our efforts. Our group ended the tour with a much better understanding of conservation districts and their role in solving problems and facilitating partnerships. The participants will address conservation policy decisions in the future with a solid frame of reference, better contacts and stronger commitment to the issues.

We need to take advantage of more opportunities to tell our story. While many of you already conduct tours and host visits, I encourage more districts and state associations to reach out to the members and staff in your Congressional and state delegations. Invite them to field days and project announcements, and provide targeted activities when possible.

Our lawmakers make decisions on a daily basis that affect districts. To gain their support at decision time, we must first inform and educate members of Congress and their staff about the efforts and accomplishments of conservation districts. Education efforts simply cannot be a one time affair—they must be ongoing in order to stay current and be effective.

Through successful demonstration of the results of our leadership in conservation at the local level, we will gain not only the attention of our lawmakers but also their respect. Make that connection, invest the time and effort and we will all see the results!

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NACD's 60th Annual Meeting will be held this January in Houston, Texas. We're all excited about a Texas style annual meeting. It's going to be the best one yet. Below are 10 reasons (although there are many more) for YOU to plan to attend this important meeting:

- You missed the first one in 1946 and you don't want to make the same mistake twice.
- You're tired of your Carhartts or your fur parka...leave them at home and enjoy the mild temperatures of Texas in the winter.
- Ja eetchet? Rumor has it you can get great Tex-Mex plus a whole lot more at Houston's 11,000 restaurants!
- You can take part in the NACD Board of Directors' Farm Bill Open Forum. This is your chance to bring your issues to the table as NACD forms its position for the 2007 Farm Bill.
- You can be the highest bidder at the Live Auction. Bring your wallet, your checkbook, and your credit card too…you might need all three. (We don't take chickens!)
- Your best cowboy boots and ten gallon hat are gathering dust in the closet and you've been dying for a chance to show off your roping and riding skills. The Texas state night will be the perfect chance to show 'em off and strut your stuff.
- You know from experience that the NACD Annual Meeting features some of the nation's most knowledgeable speakers on conservation. Attend the General Sessions to hear what they have to say.
- You want to learn how to "tawk Texun."
- You've been spending too much time in the field or behind your desk…relax AFTER sessions in the Hilton's great spa.
- You can hear all the latest gossip and news ...there is no better place to see or be seen in the conservation community than the NACD Annual Meeting.

See ya'll in Houston!

NACD CEO Krysta Harden shares with readers in this column her unique perspective on the national association that she oversees. Here she will attempt to make her thoughts...

Krysta Clear

Every acre counts. Over the next weeks and months you will hear me say this over and over. It is my new mantra as we move forward in developing policies for a new farm bill and fight funding reductions in the current package.

Every acre is key to the overall health and condition of our country. As I have traveled around the country the last several years, I have been awed by the beauty and productivity of our land. Sometimes the acres have been home to wildlife or a high yield farm or grazing for cattle or newly planted trees in an urban area. It does not matter where the acre is located, who owns it, or what its function is—the acre is a part of the comprehensive and complicated landscape…and it matters.

If every acre does count, then every landowner and operator counts too. We need all voices to join the conservation chorus. We must work together to make sure both financial and technical conservation tools are available and work for everyone. As leaders, we need to be inclusive, and bring others to the table. Our success over the next several years very well may depend on our ability to reach out and broaden our coalition.

Every acre ***must*** count. I am committed to making this a reality as we prepare for the next farm bill but I need your help. Be involved. Recognize the value of each acre. Understand how they all work together. Coordinate with your neighbor or a partner agency or organization. Make every acre count. C

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Krysta Clear

For those of you who had the good fortune of attending NACD's 60th Annual Meeting in Houston, you heard me talk about how it is not just about how you start...but also about how you finish.

It is not enough that NACD and conservation districts have existed and had a significant impact on conservation for over 60 years. It is not enough that we have had brilliant, talented and dedicated leaders for the same time period. It is not enough that we have been recognized as a major force in existing conservation policies and the delivery of programs.

While we have a wonderful and rich history to celebrate and take pride in, the lasting test will be our ability to deliver the same level of grassroots activity and provide the leadership needed in the next round of budget cuts and development of the 2007 Farm Bill.

While our powerful start is clearly documented and celebrated, we must focus now on today's challenges. We know for certain that significant cuts to conservation programs and technical assistance are proposed. Congress will have to make very tough choices over the coming months and years. However, we also know the importance of these programs, not only to farmers and ranchers, but also to taxpayers. It is our responsibility to continue to convey the value of conservation programs to lawmakers and the public.

Now is the time for conservation districts and NACD not to be caught on our heels looking back at our past accomplishments. Instead, we must invest our time and energy to protect and grow effective conservation policies that reflect the demands and opportunities for the future. c

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Krysta Clear

Spring Green...fresh, new and exiting.

I was home in southwest Georgia a few weeks ago and everything was spring green. Trees were budding, flowers were blooming and baby calves and colts were playing in the warm sunshine. My daddy, like so many other farmers, was excited about planting a new crop and the possibilities for the year ahead.

All of my life I have marveled at the optimism and excitement that comes with spring. The frustrations and disappointments of the prior months disappear. Bad crops, terrible weather, broken equipment and low prices all seem to be forgotten with the gentle days of a new spring. It brings fresh beginnings and the strong belief that this year is going to be better.

I believe some of the same principles apply for NACD. We are beginning a new season within our organization and we have great hope for the future. We are starting our spring and we are using this time to revitalize and refresh national priorities, structure and focus.

Spring for us brings a recently-elected officer team ready to lead the organization into the next farm bill debate and to provide guidance and direction on tough challenges and new possibilities.

NACD is also maximizing workload by investing in staff members with diverse training and backgrounds that bring a fresh perspective and the latest ideas to our organization.

And, just as spring is a time of renewal, NACD is renewing its commitment to our district members and partners through updated communication tools and leadership opportunities.

Spring is also a time of transition from one season to another. It is time for us to prepare for the heat ahead. The Board of Directors is taking a critical look at our future through a strategic planning process that will set the course for the next several years. The seeds we are planting today will benefit districts and NACD for years to come.

As we move forward in this new season, we cannot forget the important lessons and experiences of the past. They are a key part of our history and do help shape our future. But, we must use those lessons and new opportunities to help make NACD fresh, new and exciting.

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Krysta Clear

It's just dirt. That is what I always said and thought as a young girl. My Mama had a jar of dirt on the book shelves in her office. It was a plain Mason jar with what I would describe as "just dirt."

However, when I was about 14, apparently I had said that phrase one too many times and my Mama frankly explained that it was never "just dirt." She gave me full lesson on the benefits of dirt—soils as she called them.

She described how the soils provide the foundation for all that I had and enjoyed. Our livelihood as farmers was based on those soils. Soils provide the nutrients to grow plants that provide food for people and animals, shade from the hot sun and a wind break in the winter. She talked about soil's role as a natural filter for water and a home for creatures like worms and moles.

She went on and on until I got the message. The jar that contained dirt was actually a lot more. To her it was a bond to the original farm her father had bought years before, it also represented the way of life she loves and a connection to nature. I now share her sentiments and know that our soils are precious and should be used wisely and protected.

That jar of soil sits on Mama's bookshelf to this day. Every time I see it, I replay in my mind the conversation we had long ago about the soil. Today, I live in a city and I miss the dirt road I grew up on, the woods I played in and the acres and acres of crops that are all possible because of soils.

After all, it's never just dirt.

NACD CEO Krysta Harden shares with readers in this column her unique perspective on the national association that she oversees. Here she will attempt to make her thoughts...

Lately many conservation district leaders and employees have asked me why NACD is so heavily involved in the development and implementation of the next farm bill.

At first I was surprised by the questions and comments, especially knowing of NACD's involvement in past farm bills. After some thought, I realized that those of us who are very involved in policy and the inner workings of Washington were taking for granted our level of understanding of the value and importance of the conservation programs and policies set forth in the farm bill.

First, let's think about the big picture. The land area of the United States is about 2.3 billion acres; about 71% of this area is in non-Federal, and most of that is in rural land uses—mostly forest land, rangeland and cropland. **This means nearly 1.6 billion acres are potentially impacted by the provisions and programs established by the farm bill.**

Initially, the farm bill was designed to provide stability and market support for farmers. In 1985, it was expanded to include programs that support the investment in and participation of producers who want to protect their most fragile lands and other natural resources.

Over the last 20-plus years, the farm bill has grown to include a variety of conservation programs and policies that provide both technical and financial assistance to landowners and operators across the country.

When these practices are used on farms and ranches to improve the health and quality of the soil, water, air and habitat for wildlife, they impact the entire watershed, not just one particular farm or ranch. The benefits are enjoyed by the people in both rural and urban areas that drink the water, eat the food produced and breathe the air.

At first glance, it might seem that farm bills are for the few. However, in reality, they are for all of us who care about the environment and stability, who want to have a safe and abundant food supply, and who are concerned about the sustainability of our natural resources.

The farm bill is certainly not the only federal legislation that affects impacts conservation districts or producers and it is not NACD's only priority. However, because of the impact it does have on all of us, it will remain one of this association's major policy efforts. As a leader in conservation, get involved in the development and implementation of the next farm bill. After all, it impacts YOU.

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Why LA? As we have been planning for the NACD 2007 Annual Meeting, I have been asked by many, why are we going to Los Angeles? At first I answered casually, "I really do not know, the decision was made before I worked for NACD." But, I soon realized that was not a good answer and certainly not a reason.

Although I was not involved in the decision making process, I am sure those who did make the decision thought about the abundance of issues that could be addressed by visiting southern California. LA is the second largest city in the country and it is rich with beauty, diversity and natural resources. In one direction it is minutes from the Pacific coast and in another the mountains. The city and surrounding area have dealt with water resource issues for years as well as problems with air quality and the need for new sources of energy. LA is also a perfect location for learning about urban conservation and challenges of agriculture in heavy populated areas.

There are 103 Resource Conservation Districts in California. The RCDs work on a broad range of issues including assistance to producers and ranchers, coastal and watershed management, forestry and wildlife habitat as well as conservation education and outreach. The districts do not get any dedicated state funding, but must survive on grants and special projects. They work hard to make the most of limited resources and are getting terrific results.

While you are in LA, ask one of the California officials or employees to tell you about Solano County RCD's native plant nursery that provides education as well as plants for the community; or the Habitat Establishment Project that involved over 1,300 volunteer hours in the East Stanislaus RCD; or the "Dustbusters" task force in the Antelope Valley RCD or about the many other exciting projects in the Golden State.

LA is a great city with countless option to amuse and entertain yourself and your family. California is a vibrant and exciting place that is addressing resource concerns with new ideas and getting significant results.

There is a lot to see in LA and a lot to learn! Why LA? I say Why Not!

Make your reservations now at *www.2007.nacdnet.org*

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We just returned from a leadership meeting sponsored by NACD and the Conservation Partnership. It was a good session with lots of ideas and reminders regarding the importance of good leadership and the many reasons we as organizations need to continue investing in developing leaders.

Throughout my 25-plus year career, I have taken classes on being a good leader, participated in training courses and read stacks of thoughtful books and manuals. However, I have learned the most about leadership from true leaders. I have been very lucky to work with and around many of the finest leaders in the country. Working on Capitol Hill, I was constantly amazed by the motivating and inspiring skills of many decision makers. As a lobbyist, I worked with those who could artfully persuade and achieve tremendous successes.

I have also been impressed by the commitment of elected leaders of organizations I worked for in the past and certainly feel the same today working for NACD. This association is truly blessed to have outstanding leaders. Bill Wilson, our current President, is at the top of the leadership list. Bill has been incredibly effective at finding the right words, actions and ideas to move NACD forward. He is completely devoted to the conservation district community and has devoted his time, efforts and skills to making NACD a strong voice for conservation.

As we say goodbye to Bill as our national leader, we must also say thank you. His leadership and vision have paved the way for a bright future for NACD. Lucky for us, he is not going far away and will continue to serve in various ways. Most of all, he has also prepared all of us for continuing his work and reaching our goals. He has taught us well and readied us for the challenges and opportunities ahead. Even though his role will change within our organization, his lasting reputation as a great leader will continue. Thank you, Bill Wilson.

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Have you ever told your neighbor that you would be away for the weekend attending a conservation district meeting or NACD conference and been met by a blank stare and the question "a what kind of meeting?" Have you tried to explain the good work conservation districts do at the local level and realized your audience was lost after the first sentence?

The work conservation districts are doing in local communities and the results we are getting make a tremendous difference in the environment and in the economy, yet many citizens have no idea what we are doing.

Due to the nature of our organization and limited budget, it is doubtful we will embark on a full-blown public relations campaign complete with national television, radio and print ads. However, we have the resources in our people to tell our story.

The NACD Board of Directors adopted a vision statement last year that calls for NACD to be America's Voice for Natural Resource Conservation. While it is an ambitious goal, I believe it can be realized if all of us involved in the conservation district movement take it upon ourselves to make it happen.

NACD is already investing dollars and time into our communication efforts by enhanced relationship building with the media, improving our communication tools and being more visible and active with decision makers. However, if we are truly going to be America's Voice for Natural Resource Conservation that voice must begin with YOU.

Each one of us can and should tell the district story. It can be in a monthly column in your local newspaper, promotion of stewardship week, educating students and teachers, hosting field days for local leaders and citizens, having a display for your county fair, carnival and celebrations...there are countless ways to talk about the work of conservation districts. Just take the time to use your voice.

Just last month, Jeremy Peters from our staff was on vacation. He was pleasantly surprised one day when a woman they met already knew about conservation districts. had worked with her local district and was even using a canvas bag with the Wyoming association logo as her beach bag. He said it was rewarding to make the connection with someone far from the office.

His role as an advocate and promoter of districts was easier because someone else had already begun telling the story. Have you?

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Krysta Clear

Who inspires you?

For the last three and half years, I have written and talked often about the people who have inspired my love of the land. My great Uncle Harry, who loved the land only second to God and family; my Mama who taught me the value of our soils and the importance of the land to our family; and the soybean growers I worked for who used good conservation practices to enhance their operations.

While I have been fortunate to have these folks provide the foundation for my life and career, I know it is important to continue to have role models and inspiration.

This past week during a planning meeting of the Executive Board, I realized the NACD Officers and Executive Board provide much of my current inspiration. The association asks these leaders to not only serve on their local boards, providing input and guidance to their communities, but to also advise and direct the financial and operational direction of the national organization.

These folks not only help me run this operation, they also have families, businesses and commitments of their own. During breaks at our meeting, talk quickly shifted from balance sheets and official policies to chatter about families, the weather, new trends and ideas and questions regarding the future of conservation.

While they come from different parts of the country and have different backgrounds, they all share the passion and commitment to the conservation district system and to the national association. They are bound by that belief that what we do in conservation not only matters to their families but to everyone's family.

I left our three-day meeting drained from long hours and tedious work but also inspired and excited about the future of NACD. These folks helped me renew the reasons I wanted to work for NACD in the first place—they helped me remember it is always about the land and using all of our resources wisely.

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Krysta Clear

Are you at the Table?

"If you are not at the table you are most likely on the menu." While I cannot take credit for this clever saying (it was used by a speaker at NACD's Forest Resources Committee meeting), I sure like using it!

It says so much regarding the reasons we must be involved in key issues at the local, state and federal level. I have always been told those who show up make the decisions, and I have found that to be true during my career in Washington, D.C.

All major policy decisions, whether on Capitol Hill or by the Executive Branch, are made with input and involvement from those parties who take the time and make the effort to participate in the process. Sometimes it is the late-night decision that can make a tremendous difference in the direction of a provision or major policy. And, if you are not there to provide your input, the outcome may go another way.

NACD has long been a leader in the development of conservation policy. This means not only attending countless meetings, planning sessions and discussions in Washington, but it also means full participation by our members.

Decision makers look to those organizations that are truly committed to an issue. They want to know which groups will spend the long hours of preparation, will respond to questions with little notice, will provide real world examples in a timely manner and who provide consistent positions and balanced input.

If we expect to impact decisions, to be effective and to make a difference in conservation policy, we must be at the table. Sometimes being at the table is a true sacrifice of time, financial resources and requires focus and commitment.

For over 70 years, conservation districts have worked to make certain local leaders were involved in major conservation decisions. Honor this legacy and protect the future of conservation policy by staying off the menu and at the decision making table!

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A Time for Gifts

I love gifts. I love to give gifts and to get gifts. Just the whole idea of gifts makes me happy. This time of year between Thanksgiving and Christmas, I spend a lot of time making lists of people I want to remember, and I make even a list to share with my husband and parents of things I just might "need" this year.

However, as I was thinking about a gift list for this holiday season, my mind wandered not to lists of clothes, jewelry and purses but instead to the 509 Capitol Court Campaign. Of course, this list is not for me but instead for our Association.

The improvements listed below will help with the safety, energy efficiency and utilization of our very fine building:

1. A conference room large enough to accommodate the NACD staff
2. Carpet that is not frayed, faded or stained
3. Double pane windows that save energy
4. A connecting staircase between floors that does not require going outside no matter the weather—be it rain, sleet or snow
5. Updated bathrooms that include doors that allow privacy and toilets that flush properly
6. Hot water in the main level bathroom
7. Storage and work area on one level
8. New paint for all rooms—some of which have not been painted for 20 years
9. Better utilization of work spaces to accommodate staff and contractors
10. Improved accessibility for all visitors

This year when you are struggling with what to give that special someone, make a donation to the 509 Capitol Court Campaign in their honor or memory. Remember, no gift is too small and they are tax deductible! Happy giving.

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Krysta Clear

Why do we still give awards?

As we wrestle with securing nominations for NACD awards, we often ask why we still give out awards. Aren't they old school? Does anyone still care about getting them?

These are good questions that we should ask and answer. Over the last couple of years, NACD has used a critical eye to review what type of awards and the number of awards we give out. This attention allowed the association to better focus its awards and to recognize those who deserve it the most.

Even if we limit awards, I feel it is important to recognize those doing the very best work within our communities. Corporations still give merit awards and bonuses for extra efforts and the federal government has a number of prestigious awards. There are movie awards, book awards, music awards and many more.

People should be honored for their achievements and they should be thanked for their commitment. So many of our true leaders never get the credit they deserve. They are not doing the work to be honored or thanked; they do the work because it needs doing and they feel they have the responsibility to make sure it is done.

I am pleased NACD still takes the time to honor our leaders both as individuals and as conservation districts. It is a small but meaningful way to say thank you for extra efforts and to make sure the work is not unnoticed by peers or the public.

Enjoy the center section of this edition of *NACD News & Views*. It focuses on this year's award winners. Let's give them a pat on the back. They are getting results for all of us.

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Another NACD annual meeting has come and gone. It is amazing to me how quickly the week passes and how much is accomplished in a short time. I just regret that every single conservation district official and employee cannot attend.

This year was an unusual year as we dealt with the loss of our President Olin Sims. We honored Olin as our leader and our friend and tried our best to remember he would expect us to do our job in spite of the situation.

During the conference, the Board of Directors elected someone to fulfill the rest of Olin's term. John Redding from Georgia was given the ultimate honor of being asked to represent all conservation districts' interests and concerns. John, while hating the reason for the election, accepted the responsibility graciously and moved from being Secretary/Treasurer to President of NACD. There have been less than 20 people who have held this position in the history of the organization. It is not an easy task or one to be taken lightly, and John knows that better than anyone.

As we are forced to move forward without Olin and are made to look to the future, we do so with the knowledge that NACD is never about one person or one idea. We are stronger because of our leaders and we benefit from the time they share with us. Sometimes that time is cut short and we feel cheated, but no matter the amount of the time of service, it is the quality of service from our leaders that we appreciate.

As John begins his year as President of NACD, I encourage you to send a note of encouragement or a call of thank you for his time and sacrifice. Meetings do come and go, but the lasting impact of our leaders keeps our association strong, focused and effective.

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Krysta Clear

Change comes faster these days

Long-time conservationist and NACD employee Rich Duesterhaus and I were talking recently about changes impacting districts. We agreed that more has happened to affect how districts do business in the last 20 years than happened in the 50 years before that.

Information is so immediate in this day and age and expectations are greater. It used to be a notification of a change in policy from a partner or affiliate was written and mailed. Phone calls were used to follow up and to provide more information, and you were certain to talk to a person who could actually answer questions and give explanations regarding the need for change.

These days, even the fax is not fast enough. Many communications, including those sent by NACD, are often emailed and or posted on a website for immediate attention. Messages are often shorter and to the point without the benefit of further description or discussion.

State and federal partners are constantly enacting new policies and procedures that impact how conservation districts deliver conservation. These changes affect district budgets and local priorities and it can seem districts are last to see the change coming. Whether we are talking about increases in office rent, the use of computers and equipment or just new forms, these types of modifications make a difference in the time and quality of conservation delivery.

With information overload and change coming with a click of the send button, we have to be ready to play the game the same way. This means asking questions, communicating with all partners and keeping up with the latest issues, funding trends and potential opportunities. We need to be in front of the change, making sure impacts are controlled and even beneficial instead of being on the back side wondering what hit us and why.

This may be easier said than done, but I do believe if we are part of the change, helping to focus its force and direction, districts will be stronger and better prepared for the next round of change. Change does come quickly. Are you ready for it?

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"What in the world is NACD getting involved in climate change?"

"Why isn't NACD more involved with climate change issues?"

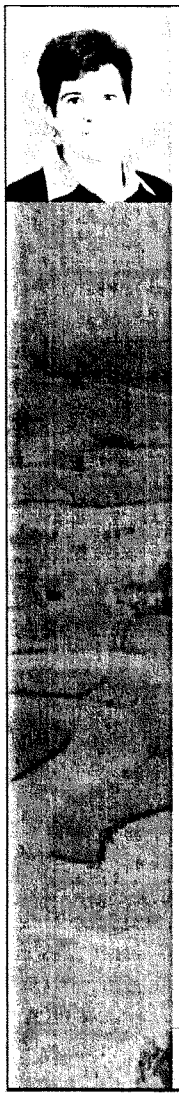
I've been asked both of these questions by members of our Board recently. The climate change debate is one that brings out both sides of our membership, and as is sometimes the case, our members' views differ. I think discussion among our ranks can be good and healthy and can lead to a stronger understanding of the issues and a more active membership.

Many conservation districts are at the cutting edge of this comprehensive and challenging issue. Leaders across the country are realizing that the lengthy debate regarding climate change will continue and there are going to be reasonable arguments on both sides of the issue.

Conservation districts leaders may disagree with some of issues regarding the impacts of climate change and even question some of the causes and effects. However, most do recognize the opportunity for motivating landowners to install new practices and innovative technologies. In some cases, districts just need to encourage landowners to continue to do what they have been doing. There is also great opportunity for conservation districts to expand their outreach and visibility.

Check out the center spread article of this issue of *News & Views* for details regarding conservation districts' work as aggregators and verifiers. And learn more about ways to use the debate to get more conservation on the ground. The policy debate in Congress and in state legislatures promises to continue for years ahead. However, there are voluntary efforts that allow for participation by conservation districts and landowners.

I don't know where this discussion will lead in the public policy arena, but I do know if conservation districts and landowners can benefit in the meantime, it is worth our staying on top of the issue and using the opportunities it presents to increase conservation.



LOUD and CLEAR

This is the first edition of *The Resource* and I feel like we have finally given birth. Since I came to NACD in 2004, I have wanted an updated newsletter. While *News & Views* served our purposes in getting our message out and was a fine publication, it felt old and stodgy to me. It was time our communication tools reflected the "new" NACD.

I wanted something fresh and appealing, a publication that would catch the reader's eye and pull them in, a publication that would be informative but easy to read and share. I wanted a publication that would say "Conservation districts are getting it done, come read all about them!"

As journalism major in college, a former press secretary on Capitol Hill and a person who loves to talk, I place a high value on communication. It is important to not only do the work but to also make sure others know about it.

Telling our story is how we build on our success, whether we are talking about how districts were formed during the Dust Bowl or how we are addressing the new challenges of today.

It is so easy to just do the work and hope someone finds out. However, in these times of multiple outlets for communicating and information overload, conservation districts have to make sure we are reaching our members, partners and customers.

I hope *The Resource* becomes one of the publications each of you makes time for. I hope you never just look at the pretty picture on front, but instead take the time to read it, learn from it and share it with others. It will be filled with valuable information regarding not only what your national association is doing but also the activities of other districts and partners.

There will be some familiar columns and stories but there will also be new features that will hopefully better address your needs, concerns and challenges. As with every communication tool, the relationship only works if it is two-way.

We can talk and talk to you as our members and readers but, if you do not want to hear, we are only background noise. *The Resource* should not be a low rumble in the background but instead your first and most reliable source for conservation district information and it should be loud and clear.

Krysta Harden

Krysta Harden, CEO, National Association of Conservation Districts

LOUD and CLEAR

After NACD annual meetings, I find myself a bit down in the dumps— just "blue" as my grandmother would call it. Certainly not because of the meeting; it was a great conference in a wonderful location, and I enjoyed being with members from across the country.

It is just the letdown after a big event. We spend months preparing and planning, and afterwards, the daily routine and a mad game of catch up bring that familiar down feeling.

Then the annual wave of visits by our members started in March. The traditional trek to D.C. to meet with members of Congress and Administration officials brings hundreds of Americans, including many of our members.

And when they come, they bring excitement and enthusiasm, lifting my mood. It started with the twenty-six bright and inquisitive Minnesota Conservation Leadership Institute participants who spent time with NACD staff learning about their national association.

They were followed by many conservation leaders, all bringing ideas and concerns and energy. The list included a first-time visitor to NACD's headquarters, former Virginia state president Daphne Jamison. Although she lives on a few hours from Washington, she had never visited our office. Ms. Jamison decided it was time to check out the building renovations and visit the Smithsonian soils exhibit. Her genuine interest and excitement was contagious, and she lifted my spirits.

Next was a visit by Jim Ham, former president of the Georgia state association and current district supervisor. Mr. Ham, in Washington with a group of other county commissioners, made time to stop by. Busy with other commitments, he did not forget his duties as a conservation leader.

In the same week, Larry Cochran, former NACD board member and region chair, took advantage of his visit to Washington to drop by the office. Larry, still active on his local district, remains interested and involved in NACD. The list goes on: conservation leader after conservation leader in town, eager to learn, help and support NACD.

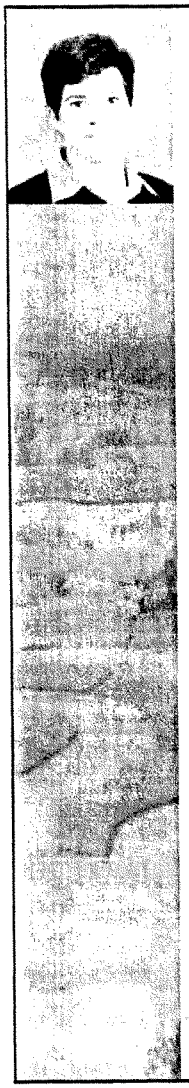
By mid-March, my spirits were invigorated. I felt rejuvenated and ready for the challenges ahead, again motivated by our members' commitment and passion. No matter how hard the issues or difficult the tasks, the answers lie in the wisdom and leadership of conservation district leaders.

No matter how hard the issues or difficult the tasks, the answers lie in the wisdom and leadership of conservation district leaders.

I have promised myself the next time I feel "blue" or discouraged, I will remember our members' dedication...not just the ones that visit the office, but all of you across the country and territories. Thank you for your support.

Krysta Harden

Krysta Harden, Chief Executive Officer, National Association of Conservation Districts



LOUD and CLEAR

Who does NACD represent?

I have been asked more than once who NACD represents or, worded another way, "Who does NACD lobby for?"

The answer is always simple and always the same: NACD represents conservation districts.

There seems to be a misunderstanding—or maybe more of a lack of understanding—regarding the role of the National Association when it comes to policy issues.

It is not ethical for NACD to represent the interests of any other group. While many of our principles and priorities are similar and even close to the same as other organizations, NACD's sole responsibility is to represent the role of districts and to protect districts' interests and concerns.

Sometimes the lines can get a little fuzzy because NACD has many strong partners with missions and objectives we agree with. For example, RC&D Councils and the Watershed Coalitions are two organizations NACD works closely with, and we support their priorities. Both organizations' respective agendas directly impact many conservation districts, and both organizations' members are often some of the same community leaders that are a part of NACD's membership.

However, each of these organizations has their own elected boards and staff, and NACD must respect their decisions and activities. They are the lead on their respective priorities and efforts, and NACD plays a supportive and helpful role when able.

It is also illegal for NACD to represent or lobby for a federal agency, even those we work with and support. There is a bright line between NACD and the federal government, and it must be respected and adhered to.

That does not mean that we, as conservation districts or as NACD, cannot agree with policies, programs or priorities of our federal partners. However, NACD must limit its involvement to protecting the role of conservation districts in these areas in order to make sure our interests are fully understood and utilized.

NACD is the ***only*** voice for conservation districts at the national level. While many other groups and organizations support conservation funding and the availability of conservation programs, no other group or agency works to ensure districts remain vital in program delivery and that districts continue to have a seat at the decision table.

So, the answer to the question is easy: NACD represents conservation districts, all day every day. It is the reason NACD was established in 1946 and the reason it is still a viable, credible voice today.

You heard it here…loud and clear.

Krysta Harden

Krysta Harden, CEO, National Association of Conservation Districts

QUESTIONS AND ANSWERS

JULY 23, 2013

Chairwoman Stabenow QFR's Harden Bonnie Nomination Hearing

QFR for Ms. Harden

- Earlier this week, Secretary Vilsack announced the sign-up activity and acceptable offers for the Conservation Reserve Program (CRP). This program serves an important function within the conservation portfolio for incentivizing farmers to remove marginal agricultural lands from production. In addition, the CRP provides opportunities for placing water quality and wildlife benefiting practices on cropland creating conservation benefits in harmony with commodity production. The most recent figures are reflective of a much larger and complex crop production transition occurring across our landscape. In the Senate passed Farm Bill we place emphasis on ensuring that we protect the most sensitive acres while realizing budgetary savings.

1) Senate Bill 954 provides for a total CRP enrollment of 30 million acres in 2014. Your announcement indicates a projected enrollment of 25.8 million acres at the beginning of fiscal year 2014. When the Farm Bill is signed into law, what actions can and will the Department undertake in early FY 2014 to maximize the use of the CRP for removing marginal agricultural lands, increasing water quality benefits, and improving wildlife and pollinator habitats by enrolling lands in contracts during 2014?

2) In the targeting of the CRP to site and farm specific benefits, is the current model used by the Department serving the natural resources and the CRP to achieve its fullest potential?

- I have heard stories from a growing number of farmers across the country, who are struggling with hard-to-control weeds, which are resisting commonly used crop protection and pest control products. Many of these growers are looking to the USDA to approve the latest biotechnology that will address the challenges they face in the field.

    1) How do you intend to ensure that the latest biotechnology addressing these issues gets into the hands of the farmers that need them in a timely manner, without unnecessary delay while ensuring that the products are safe?

QFR for Mr. Bonnie

- Green Building/Wood Products Research: A few years ago, the Secretary announced plans to promote wood use in building construction and invest further in research to evaluate wood products life cycle impacts. As the Secretary mentioned, this initiative could support jobs and strong rural economies, healthy working forests, and help mitigate climate change because wood products store carbon.

    1) What is the status of this initiative, and in particular, have you fully invested in the research necessary to evaluate the life cycle impacts of wood products? What will you do in your new role to continue to support this initiative?

- The recent DC Circuit biomass decision has created significant uncertainty and on the ground impacts for biomass and pulp and paper facilities that have recently received permits or have construction or modification permit applications pending.

1) Do you agree that finalizing a rule in a timely fashion is now more important than ever in light of the D.C. Circuit decision and the uncertainty it has caused for the forest products industry.

2) What are the implications that this policy could have on existing facilities that are in the process for new permits or modifications, as well as future investments?

3) How have you worked together with EPA on the Tailoring Rule amendments to ensure that USDA's expertise on forest carbon is fully reflected?

4) Do you agree that finalizing a rule in a timely fashion is now more important than ever in light of the DC Circuit decision and the uncertainty it has caused for the forest products industry?

Senate Committee on Agriculture, Nutrition & Forestry
Agriculture Committee hearing on Department of Agriculture Nominations
Questions for the record
July 23, 2013

Ranking Member Cochran

Questions for Krysta Harden:

1. Given the challenge of crafting a new five-year farm bill under serious budget constraints, the Senate's new farm bill – the Agriculture Reform, Food and Jobs Act of 2013 (S. 954) – provides the certainty of a five-year farm bill for American farmers, ranchers, conservationists, and others in related industries while also being fiscally responsible. The Committee made a concentrated effort to identify savings and to improve the effectiveness and efficiency of streamlined programs while protecting their integrity. For instance, the conservation title proposes to replace regional conservation program authorities (Chesapeake Bay Watershed Program, Great Lakes Basin Program) with a new Regional Conservation Partnership Program (RCPP). In the same way, the newly created Agricultural Conservation Easement Program merges, maintains, and simplifies the authorities for three easement programs: the Wetlands Reserve Program, the Grassland Reserve Program, and the Farmland Protection Program. Given your experience as a former House Agriculture Committee staff member and as Chief Executive Officer of the National Association of Conservation Districts (NACD), I am sure you are well aware that implementation of a new Farm Bill is a timely and rigorous administrative process. If not done carefully there can be many unintended consequences. If confirmed, what steps will you take to ensure that all farm bill programs and reforms are implemented in a way that follows the intent of the law and best serves producers?

2. The Budget Control Act of 2011 has required USDA to reduce spending across the Department. In the past, USDA has claimed that "essential federal employees" would not be subject to furloughs. It is my understanding that "essential" employees were those that are "necessary to fulfill constitutional responsibilities, safeguard human life or protect property." During the past six months, USDA has considered furloughing employees—including food safety inspectors—and has taken administrative actions to reprogram funds that were designated for direct payments to farmers. Looking ahead, how will the agency identify funds to uphold contractual obligations and provide greater certainty to those that do business with USDA?

3. Improving program delivery and service to customers has long been an area of focus for USDA leadership. Given the overall budget situation, this is more important than ever. If confirmed, what actions will you take to effectively and efficiently modernize delivery of the Department's many government programs, particularly the timing of purchases in the Food and Nutrition Service commodity programs and the Farm Service Agency (FSA) programs that benefit producers?

4. In recent years, many farmers, ranchers, and other growers have expressed concern about increased operating costs related to new government regulations. Additionally, there has been concern that there is a strained relationship between the Environmental Protection Agency (EPA) and agriculture groups regarding regulations. If confirmed, what will you do to represent U.S. agriculture's concerns with increased government regulations and what steps will you take to improve the relationship with EPA?

5. More than 60 percent of Mississippi's forestland is considered privately owned by families and individuals. These family-owned forests are integral to ensuring we have clean water, wildlife habitat, and a strong forest products industry. Strong markets are crucial to keeping forestland as forests. With strong markets families have income to treat their land when fires, insects, and hurricanes strike. If confirmed, what will you do to support strong markets for forests? Can you assure me that you will work to remove barriers that unfairly treat U.S. forest products – such as discriminatory policies against wood in green building construction, in USDA's Biobased Markets Program, and against wood for energy?

6. Nearly five years have passed since the enactment of the 2008 Farm Bill, which requires the USDA Food Safety Inspection Service to create a new science-based program for the inspection of all foreign and domestic catfish. I appreciate your assurance that the Department will honor the law enacted by the legislative body. However, I wanted to clarify the timeline for the final rule. The Undersecretary for Food Safety recently informed me the Food Safety Inspection Service is committed to issuing a final rule on the program by the end of the current fiscal year. What is the current status of the Catfish Inspection Program, which was mandated by Congress to be implemented within 18 months of enactment of the 2008 Farm Bill? Are there any other provisions of the 2008 Farm Bill that have not been enacted? If so, why?

7. The Department has recently issued several regulations pertaining to the school meal programs that have been met with significant concern. School food authorities and other stakeholders have raised objections to the cost of new requirements, as well as the practicality and ability of the regulations to be implemented. In fact, the Department had to issue, and subsequently extend, modifications to the school meal standards. At a recent conference, it was announced by USDA that this flexibility would be made permanent by the end of this calendar year. Given that school food authorities and those producing food for the programs need certainty to run their programs and businesses, do you have any specific indication when that flexibility will be made permanent?

8. Over the last several years, the Department has placed a strong emphasis on the promotion of organic production and local distribution and retail. While these production and retail methods are an important part of our food system, some feel they have been emphasized at the expense of more conventional production methods. Conventional methods, which employ modern technologies and efficiencies, have allowed us to provide our citizens with safe and inexpensive food as well as to export and provide food

to customers around the world. Can you describe your view of the Department's role in supporting all sectors of American agriculture?

9. Farmers and many in the agriculture industry have made investments in technology to continue to efficiently produce plentiful, affordable food and fiber for the American consumers and for export customers. However, a growing challenge in an increasing number of states is the management of weeds. Some producers are even being forced to re-evaluate tillage practices and other conservation measures. At the same time, seed technologies with herbicide tolerant traits have been pending approval at USDA since 2009. Can you explain the reasoning for the delayed approval process? What steps is USDA taking to ensure that farmers have access to these and other seed technologies in a timely manner?

Questions for Robert Bonnie:

1. The Senate Farm Bill proposes to consolidate the Farmland Protection Program (FPP), Grassland Reserve Program (GRP), and the Wetlands Reserve Program (WRP) easement programs into one larger program with two separate components: agricultural land easements (ALE) and wetland reserve easements (WRE). After the 2008 Farm Bill, it is my understanding that USDA encountered difficulties in finalizing the FPP regulations. Despite the agency's efforts, I understand that the FPP certification process has resulted in one certified entity to date. A new easement program will rely on this existing certification process for new land easements. I am concerned about the development of new rules and regulations that could delay or have a negative impact on the wetlands reserve portion of a consolidated easement program. If confirmed, will you commit to work with me and this Committee to ensure that the certification process developed for land easements is practical and less cumbersome? If confirmed, what steps will you take to make sure that any possible delay on the ALE portion of the consolidated easement program does not delay action on the wetlands reserve portion?

2. There have been several recent USDA Office of Inspector General (OIG) reports which recommend the Natural Resources Conservation Service (NRCS) improve the policies and procedures regarding the administration of the Farmland Protection Program. If confirmed, what steps will you take to ensure that the proper internal controls and safeguards are in place to review the States administration of the easement programs and the overall operations of the non-governmental (NGO) organizations' role in the programs?

3. One of the programs under your purview is the Wildlife Habitat Incentives Program (WHIP). The Senate-passed Farm Bill proposes some changes to the program. If confirmed, should a new Farm Bill be enacted into law, will you commit to work with me and this Committee to implement this program in a manner that maximizes fish and wildlife habitat in conjunction with working farms and forests?

4. The Senate-passed farm bill includes a few key changes to strengthen and streamline Conservation programs. More than 60 percent of Mississippi's forestland is owned by families and individuals, and the Farm Bill conservation programs are key to making sure these family forest owners have the tools and resources they need to conserve their forests and keep them healthy. Throughout the implementation of the Farm Bill, what will you do to ensure forestry remains a priority within the conservation programs and that forest owners have access to the tools and resources they need?

5. The concept of locally-led conservation has been a cornerstone of conservation policy for decades. The Environmental Quality Incentives Program (EQIP), one of the largest and most popular programs among producers, is designed to assist producers with implementing specific conservation practices on the ground and the delivery of the program relies heavily on input at the state and local level. If confirmed, how do you intend to balance the emphasis on locally-led conservation while addressing national priorities through landscape initiatives? Would it be your intention to focus on a more top-down, national initiative approach with regard to administering EQIP and other conservation programs?

6. A number of conservation organizations have expressed concern with the funding level of conservation technical assistance in recent years. I, along with several of my colleagues, share the concern that lowered funding for conservation technical assistance means that NRCS is having difficulty in delivering programs to producers and private landowners. If confirmed, what steps will you take to work with the Office of Management and Budget (OMB), conservation groups, and Congress to make sure that USDA has the resources to properly deliver the conservation programs authorized by the Agriculture Committee? Can you provide a detailed breakdown of what NRCS funds for conservation technical assistance?

7. It has come to my attention that NRCS has experienced a considerable backlog in wetland determinations in four states: Iowa, Minnesota, North Dakota and South Dakota. It is my understanding that as of February 2013, NRCS had a backlog of over 14,000 wetland determinations and NRCS directed additional conservation technical assistance resources to address this backlog. To date, what progress has been made on this significant backlog? Given the current backlog, staffing issues, and workload, do you think USDA will have to shift additional resources away from some states?

8. NRCS has the authority to enter into cooperative agreements with other Federal, state, or local entities as well as non-profits, for-profits, and other entities. Excluding the cooperative agreements entered into through a conservation program, how many active cooperative agreements is NRCS party to? Can you explain the process NRCS uses in determining whether or not to enter into a cooperative agreement and how the cooperative agreements are funded? Given recent budget conditions, how does NRCS determine which cooperative agreements to continue and which to terminate?

9. There has been much discussion about what the proper role is for the Federal government in establishing various types of environmental credit trading markets. Over the past

several years, NRCS has awarded several grants that some think lay the groundwork for USDA to establish credit markets. What is your opinion about the proper role of government in establishing these markets? What authority do you think USDA has in trying to develop these types of markets? For example, some constituencies believe USDA has the authority to buy these types of credits. Do you agree or disagree with this philosophy? Do you think USDA's conservation programs should be altered or administered in any way to facilitate the establishment of these markets?

10. USDA has been working with other federal agencies on the concept of agricultural certainty for some years. If confirmed, what actions will you take to help finalize agreements that recognize once a producer or landowner is in compliance with certain regulations that he or she should have safe harbor from future changes to those regulations? What do you view is USDA's role and how will you work to advance these agreements related to agricultural certainty?

11. The Agriculture Reform, Food and Jobs Act of 2013 includes permanent reauthorization of Stewardship End-Result Contracting. I have heard from a broad coalition of forestry stakeholders encompassing land managers, conservation groups and the forest products industry expressing support for the reauthorization of this authority. I know many states, including Mississippi, use this authority to achieve land management goals while meeting local and rural community needs. Some stakeholders express concern that the U.S. Forest Service will use this authority to replace and reduce the Forest Service timber program. How do you view the role of stewardship contracting authority? If confirmed, will you work to assure this Committee and forestry stakeholders that this authority will not attempt to diminish or replace the Forest Service timber program?

12. Forests help provide clean drinking water, critical wildlife habitats, recreational opportunities, sustainable and renewable resources, and economic viability for rural communities across the country. While I consider our National Forests to be national treasures, I am also a firm believer that a primary mission of the Forest Service is to administer and oversee working National Forests that provide multiple uses to the public. Active forest management and landscape restoration work is critical to maintain the health of our National Forests. I have some concerns that the Administration's FY2014 budget proposes to reduce the scale of forest restoration on National Forests even after the agency acknowledged the need to increase management in 2012. For example, most National Forests in Region 8 are harvesting significantly less timber than called for in their current forest plans. If confirmed, can you commit to working with me and this Committee to improve performance in our National Forests?

13. If confirmed, your position will oversee the U.S. Forest Service. The U.S. Forest Service has been working to implement the Large Airtanker Modernization Strategy with the sole purpose of upgrading the aging airtanker fleet with "next generation" airtankers. As Under Secretary for Natural Resources and Environment how much involvement will you have in advancing this priority? What would an updated fleet of aerial assets, including airtankers and scoopers, look like in your view – in terms of aircraft mix and how these planes are owned and operated? I understand that the U.S. Forest Service recognizes the

benefits that scooper aircrafts can add as a tool to aerial fire suppression efforts and the agency has been working with the Department of Interior to add an additional scooper aircraft to the fleet. Can you provide a status update of this interagency process and when it is expected to be completed?

14. On July 2, 2013, the Secretary of Agriculture issued a Memorandum addressing Sustainable Forestry in Southeast Alaska. In that memorandum the Forest Service is directed to transition the harvest from old growth to young growth over a period of 10 to 15 years while maintaining an integrated wood products industry and sustaining communities in the region. How do you envision this transition occurring over the 10 to 15 year period? Specifically, how will you, if confirmed, ensure that this transition successfully sustains the timber jobs and communities in Southeast Alaska?

15. On May 24, 2011, the Alaska District Court vacated the Tongass exemption and reinstated the 2001 Roadless Rule on the Tongass National Forest (Organized Village of Kake, et al. v. USDA, et al.). At this time, the Tongass National Forest is subject to the provisions of the 2001 Roadless Rule. The District Court, however, did specifically state that the Forest Service may reevaluate its approach to roadless area management in Alaska. If confirmed as Under Secretary, will you commit to reevaluate the current approach to roadless area management to include considering a new rulemaking on the application of the roadless rule in Alaska?

16. In many states, including Mississippi, the forest products industry is incredibly important to the rural economy, rural landowners, and working families. I appreciate the efforts of USDA to promote wood products in building construction. One key piece of USDA's initiative was investing in research to ensure that the latest science and technology for wood use is available. Can you provide information on USDA's commitment to green building and wood products research? What will you do to ensure this research continues if your nomination is approved?

17. The Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act (RESTORE Act) established the Gulf Coast Ecosystem Restoration Council which is comprised of governors from the five affected Gulf States, the Secretaries from the U.S. Departments of Agriculture, Interior, Commerce, Homeland Security, the Secretary of the Army, and the Administrator of the Environmental Protection Agency. It is my understanding that Secretary Vilsack has identified the Under Secretary for Natural Resources and Environment as his designee on this Council. The Council oversees the Gulf Coast Restoration Trust Fund which was established in response to the Deepwater Horizon oil spill with the sole purpose of restoring and protecting natural resources, ecosystems, marine and wildlife habitats, coastal wetlands and the economy of the Gulf Coast region. If confirmed, what steps will you take to ensure that beneficial projects and programs are funded? Will you commit to providing me with regular updates on the Council's activities, particularly USDA's involvement?

Question for Krysta Harden:

1. As you know, Southeast Colorado is currently experiencing terrible Dust Bowl conditions. Large segments of Colorado's Eastern Plains—the lifeblood of our $40 billion agriculture sector—are essentially blowing away. It's the result of 3 consecutive seasons of drought, and most experts are indicating that producers in the arid West will continue experience dry conditions over the next few years. Of course, there's nothing we can do to stop this drought or prevent the next one from occurring. But what opportunities do you see for the USDA to help places like Colorado suffering from the effects of persistent drought?

Questions for Robert Bonnie:

1. Colorado's forests have had a rough few years. Beyond catastrophic wildfires, we've also seen unprecedented insect epidemics affecting huge stands of timber across the state. In February of 2012, the Forest Service published a restoration strategy to address forest health issues in a more coordinated way. I often hear about these approaches in Colorado—including more collaborative projects with industry and environmental groups, more mechanical thinning, and more jobs in the forest products industry. Can you discuss the status of implementing the Forest Service's restoration strategy? How can Congress and this Committee work with you to achieve the worthwhile goals set out in that strategy?

2. People back in Colorado have various perspectives to share when asked about the barriers to getting more restoration work done on our national forests. Some say it's all about a lack of money; others say environmental analysis and lawsuits. Most all will agree that we should do more work on the front end to reduce our risk of wildfire. As the saying goes – an ounce of prevention is worth a pound of cure. Can you share your perspective on the largest barriers to achieving your restoration and fuels reduction goals on our national forests?

3. In March of this year, I introduced S. 651, the *Thompson Divide Withdrawal and Protection Act*. The legislation would withdraw nearly 200,000 acres of White River National Forest land in Colorado from future mineral leasing. The area's undeveloped character is a main driver of

the local economy and the legislation is widely-supported by the communities in this region. Will the Department continue to collaborate closely with me and my office on this legislation and the implications of Forest Service planning decisions in the area?

Senator Boozman Questions for the Record

For Mr. Robert Bonnie, Nominee for Under Secretary of Agriculture
for Natural Resources and Environment
U.S. Senate Committee on Agriculture, Nutrition and Forestry
July 23, 2013

Mr. Bonnie:

1) You once expressed your concerns about the impact "when food-producing land is diverted for energy production." You noted that corn ethanol production can lead to a "significant increase in greenhouse gas emissions relative to gasoline when indirect land use change is taken into account." I know that the EPA leads on the RFS, but you will be involved in interagency discussions, if confirmed. Will you advocate for RFS repeal or reform, if confirmed?

2) You have been supportive of a carbon tax or cap-and-trade, despite the fact that such a regime is regressive, since low-income people use more energy as a percent of their income. You also mentioned that it can harm America's farmers and domestic job-creators. Some carbon tax proposals include complex schemes – such as redistribution and tariffs – to address these challenges. Could you explain some of the challenges that such schemes would present?

3) A number of serious claims have been made in an broad attempt to connect individual weather events – hurricanes, tornadoes, and so on – to anthropogenic climate change. Do you agree with such claims? Please elaborate.

4) When agencies perform regulatory impact analysis, do you believe it is important to follow standardized procedures established by the Office of Management and Budget?

5) In assessing the benefits and costs of a regulatory policy, do you believe the USDA should evaluate domestic costs and domestic benefits separately from global/international costs and benefits? In other words, do you think standard practice should be to separate out the benefits and costs to American citizens of a particular regulatory policy, so that those costs and benefits can be independently evaluated?

6) In Arkansas we have a lot of forests – our forests have actually been pretty well-managed, when compared to other regions . But in other parts of the country, bad forest

management has significantly increased the threat of wildfire. Some predict that these management practices will lead to increased wildfires in certain regions over the coming decades. Would you agree that it's important, when discussing the frequency of events such as wildfires, to consider factors such as forest management, in addition to weather patterns?

7) What is your view of the forest health benefits from timber sales, thinning, and reforestation?

8) Since 2008, timber sales from the Ouachita and Ozark NF's have declined by more than 9%. During this same time period, lumber prices have more than doubled, from below $150/MBF to over $300/MBF.

    a. Can you explain why timber outputs have fallen despite a rising market?
    b. Has the need to conduct management dropped in the intervening years?
    c. Can you provide for the Committee a chart showing the increase in timber sold through Stewardship contracts on the Ouachita and Ozark National Forests over the last 5 years?
    d. If the proportion of timber sales sold as Stewardship contracts has been increasing, can you provide the committee with the following: (1) a summary of price per unit of wood (CCF/MBF/ton) obtained at auction from these forests for the same time period, and (2) a summary of costs per acre of forests thinned on these forests for the same time period?
    e. I'm increasingly concerned about reports of sales being offered that have gone no bid, particularly in light of the increasingly robust timber markets we are seeing. Will you commit to working with me to address these problems and see to it that these forests offer sales that meet the needs of Arkansas' timber industry?

9) Under your guidance, how will USDA use the recently revised "social cost of carbon" assumptions to influence policy choices?

10) As the EPA attempts to implement regulatory policies that would have a profound and costly impact on American farmers – such as the Ozone National Ambient Air Quality Standards (Ozone NAAQS) – will you initiate any interagency communications or coordination to ensure that the costs and burdens on American farmers are fully considered by the EPA? If so, please describe any permanent protocols or practices that you would put in place to ensure that such communication and coordination continues throughout your tenure.

11) There is an effort to rebrand each agency within the Department. Some in USDA leadership are attempting to do away with individual agency logos and identity – such as NRCS, or Rural Development – and forcing all agencies to simply identify visually as "USDA." I'm worried that this could have unintended consequences. I've heard from local conservation districts in Arkansas who work so hard to build good relationships between farmers & landowners and NRCS. NRCS does really good work with Arkansas farmers. In order for these relationships to thrive, farmers must be able to *trust* that NRCS has their best interest at heart. I am concerned that eliminating the NRCS identity and simply having "USDA"-branded personnel "show up on the farm," could really undermine trust and existing relationships that have been built over many years. Do you share this concern, and what is your view on this issue?

12) Gains in conservation tillage and its importance as a tool to prevent soil degradation is closely linked with the availability of effective weed control system, including herbicides and weed resistant crops. However, USDA has failed to effectively review herbicide-tolerant traits for corn, soybeans, and cotton in a reasonable timeframe. What concerns have you expressed to USDA leadership about the continued viability of conservation tillage without the approval of safe technologies in a timely manner, and what do you intend to do to remedy this situation if confirmed?

Senate Committee on Agriculture, Nutrition & Forestry
To consider the following nominations: Krysta Harden & Robert Bonnie
23 July 2013
Questions for the record

Senator Gillibrand

Questions for Ms. Krysta Harden (Nominee for Deputy Secretary)

1. Antimicrobial resistance is an evolving global public health and agriculture security threat. Veterinarians and farmers need increased research and extension services to improve judicious antimicrobial use, develop procedures and practices to comply with the Food & Drug Administration's *Guidance for Industry 209* and *Draft Guidance for Industry 213*, and improve infectious disease control in production animals? In your new position, how will you ensure the Department meets this challenge to improve animal health and concurrently reduce unnecessary and injudicious antimicrobial use?

2. A recent Centers for Disease Control & Prevention report on attribution of foodborne illness from 1998-2008 showed that our food safety system has failed to make inroads against *Salmonella spp.* In your position as Deputy Secretary of Agriculture, will you improve or implement new policies to control and prevent pathogens in our food system, such as additional pathogen reduction performance standards and microbiological surveillance testing?

3. The Food Safety & Inspection Service has proposed a rule to change poultry inspection by relinquishing carcass and viscera inspection to control of the producing company. There have been significant food safety and occupational safety concerns regarding this rule. In your new position at the Department, how will you ensure changes in inspection procedures are highly scrutinized to ensure there are not negative impacts on occupational safety, the environment, food safety, and animal health?

4. Program fidelity is critical to ensure a fair and consistently high level of food safety protection for our meat, poultry, and egg product supply. How will the Office of Field Operations ensure that its inspection methods, policy implementation, and enforcement are consistent? How will it respond to recent Government Accountability Office (GAO) and Office of the Inspector General (OIG) open or unresolved recommendations that have documented repeated inconsistencies in assuring major food safety, inspection, and animal handling requirements?

5. Pandemic threats are a constant and grave threat to domestic health and agriculture security. With increasing changes in land-use and urbanization, it is estimated that there is

an increase in the emergence of new infectious diseases from wildlife sources, which is magnified by international trade and travel. The Animal & Plant Health Inspection Service (APHIS) Agency performs many important biosecurity functions, such as responding to the recent avian H7N9 virus in China. In your new position, will you improve APHIS's bio-surveillance activities and coordination with other public health agencies to conduct better surveillance for existing and emerging pandemic threats and foreign animal diseases from entering our nation, including at international ports, such as at the John F. Kennedy Airport in New York?

6. Childhood obesity remains one of this country's top health concerns, with some experts predicting that today's generation of kids will face long-term poor health and debilitating chronic disease as a result. What are some of the actions you would take as deputy secretary to help reverse this epidemic?

7. The Supplemental Nutrition Assistance Program is the backbone of the nutrition safety net in this country. What are some steps you would take to ensure that the program remains strong? And specifically what would you do to pro-actively ensure that the SNAP program retains the resources it needs to serve our country's neediest families?

8. The National School Lunch Program is paramount to the health, welfare, and education of our nation's children. In your new position, how will you ensure that the program provides the highest quality food in terms of nutrition, food safety, and wholesomeness?

9. Cultural transformation is critical to the workforce of the Department and its agencies. In your new position, how will you help make this priority a reality, with a focus on outcomes that substantively creates an organization that is open, diverse, and accepting? Specifically, ensuring this is not only focused at the Department's headquarters but ensuring equal attention and substantive transformation at regional, district, and field positions? Please include in your answer what foundational changes you will lead, such as in hiring strategy, management accountability, organizational communication, and ensuring all employees can openly play a part in this transformation? For example, how can a Slaughter Inspector in the Food Safety & Inspection Service or an Animal Health Technician in the Animal & Plant Health Inspection Service provide input to the Department, contribute their time to promoting diversity, or address a hostile work or environment? And how do you plan to measure progress?

Questions for Mr. Robert Bonnie (Nominee for Under-Secretary of Natural Resources)

1. Creating an agriculture system that produces wholesome and safe food while protecting our nation's environment is truly a mounting challenge in the 21st century. In your new position, what will be your top priorities in order to meet this challenge?

2. Small and medium sized dairy farmers face very unique and difficult challenges for their truly great contributions to our nation's food supply. How will you be able to ensure that policies like those for the Standard for Nutrient Management plans are created with full consideration and collaboration with dedicated dairy farmers in places like Upstate New York? And how will you improve the Natural Resource Conservation Service's future collaboration with dairy and specialty crop farmers, as well as extension experts?

3. The USDA OIG recently published an audit in February 2013 of the agency you are nominated to lead, which identified that NRCS needs to improve its compliance activities by developing a comprehensive, integrated compliance strategy; as well as the need to improve the organization's structure and dynamics, and to better target and management risk. Please describe what actions you will take in your new position in order to address these issues, as well as your timeline for their completion.

Question Submitted by Senator Chuck Grassley, U.S. Senate Agriculture Committee Hearing on USDA Nominees, July 23, 2013

Question for Ms. Harden-

1. I sent a letter to USDA APHIS and OMB requesting that they move towards finalizing a comprehensive BSE rule as quickly as possible in February of 2012. I have been told progress has been made on this issue in the last year but a final rule has not yet published. Is there a timeframe for when the final comprehensive BSE rule will be published?

Johanns QFRs for Krysta Harden, USDA Deputy Secretary Nominee

1) I was pleased to see USDA finally approved horse slaughter permits to facilities located in New Mexico and Iowa. While this is a step in the right direction, the plants cannot begin operation until the USDA allows FSIS inspectors on-site. It's troubling to me that the Obama Administration's fiscal budget for 2014 eliminates funding for horse meat inspection, effectively shutting down legal horse slaughter that could take place.

   In 2011, the Government Accountability Office (GAO) released a report that looked at the impact of the U.S. horse slaughter ban. According to the report, horse welfare in the United States has declined since 2007, as evidenced by a reported increase in horse abandonments and an increase in investigations for horse abuse and neglect. Furthermore, the horse slaughter inspection ban has not stopped horses from being slaughtered. Many unwanted horses are still being processed for meat, but they are shipped greater distances to slaughterhouses in Mexico, which is outside of the reach of USDA humane slaughter regulations. After the 2011 GAO report, Congress did not include a ban on the use of federal funds for the inspection of slaughtered horses in the FY2012 appropriations bill, which was signed into law (P.L. 112-55) on November 18, 2011.

   As you are aware, both House and Senate Appropriations bills – if signed into law – would reinstate the horse slaughter ban, as proposed by this Administration. This would continue the disastrous impacts we have seen on horse welfare. Since USDA supports reinstating the ban, what recommendations do you have for the humane disposal of unwanted horses, other than horse slaughter? How will USDA implement these recommendations?

2) As you know, part of the competitive edge of U.S. farmers is their innovative, entrepreneurial approach to agriculture. For the most part, farmers here are more interested in revenue earned from the market rather than government protection from market forces. Our market leadership is maintained by adoption of technology that allows farmers to produce more food on less ground while conserving natural resources. This is particularly the case with biotechnology and genetically engineered crops. As we have seen over the past 20 years, this technology is vital to improving yields, but innovation likely will have to accelerate to a more rapid pace than we have seen historically in order to feed a wealthier, more populous world.

   I know you recognize the importance of this technology, but I am concerned that it seems to be taking much more time to move new traits through APHIS approval. The Plant Protection Act gives APHIS authority to determine if a genetically engineered crop is a plant pest, and if APHIS determines that such a crop is not a plant pest, it must be deregulated—there is no authority to further delay approval with an environmental impact statement or other obstacles.

   The 9th Circuit Court recently stated, "If APHIS concludes that the presumptive plant pest does not exhibit any risk of plant pest harm, APHIS must deregulate it since the agency does not have jurisdiction to regulate organisms that are not plant pests." Will USDA change its deregulation process in response to the Circuit Court decision, which held that once USDA

concluded a plant "was not a plant pest…the agency had no jurisdiction regulating the crop"? Will USDA continue to require environmental impact statements (EIS) rather than environmental assessments, even though an EIS adds years to the approval process? Is there any legal or scientific justification for doing so? In your view, should the potential threat of unfounded lawsuits from environmental activists be given priority by USDA over the need of farmers for products that can help manage threats and grow more food on less land?

Finally, I know there are instances in which foreign governments, such as Brazil and Canada, have approved traits that have not been deregulated in the United States. Is there any scientific reason or other basis for the delay in U.S. approval, causing us to lag behind our foreign competitors?

Senate Committee on Agriculture, Nutrition & Forestry
Nominations Hearing: Krysta Harden for Deputy Secretary of Agriculture, and
Robert Bonnie for Under Secretary of Agriculture for Natural Resources and Environment
July 23, 2013
Questions for the record

Senator Klobuchar

Krysta Harden

1) This week the Department of Agriculture announced that they would allow emergency haying and grazing in Minnesota to increase the availability of feed for dairy and cattle producers in response to the severe loss of this year's alfalfa crop. Understanding the importance of responding to disasters quickly, as the Deputy Secretary of Agriculture, how would you work to make timely disaster assistance for agriculture producers a priority?

Robert Bonnie

1) The Environmental Protection Agency is currently working to develop a rule to determine the carbon accounting of energy from biomass sources such as wood. The Department of Agriculture and the Forest Service have done a great deal of research on this topic. How would you collaborate with the EPA to ensure that the EPA uses the best possible science when looking at the full life-cycle analysis of these renewable resources?

Questions for the Record for Krysta L. Harden, of Georgia, nominee for the position of Deputy Secretary of Agriculture

United States Senator Mitch McConnell

Senate Committee on Agriculture, Nutrition & Forestry

JULY 23, 2013

Krysta Harden-

On December 18, 2012, the USDA's Risk Management Agency (RMA), without notice in the Federal Register, announced changes to crop insurance requirements for burley and flue-cured tobacco effective for the 2013 planting season. Specifically, the RMA changed the rotation schedule requirement for burley and flue-cured tobacco from three years to two years on the same plot of land. It is my understanding that these changes were made in an effort to reduce risk and losses attributed to disease and to address concerns of crop insurance fraud. I certainly support the RMA's efforts to improve the tobacco insurance program and to address program integrity that will lead to a sustainable and responsible continuation of the overall crop insurance program.

However, the unfortunate timing of this announcement rendered many tobacco farmers in Kentucky ineligible for coverage in 2013. Having grown up on a tobacco farm yourself, you may be aware that by the time this announcement was made in December, farmers had already made irreversible planting preparations and did not have the resources necessary to procure new, eligible land to plant their tobacco. Consequently, many were forced to plant tobacco without crop insurance coverage for 2013. Moving forward six months, excessive rain in my region has caused tremendous tobacco losses and many Kentucky farmers now do not have coverage, due to no fault of their own. The USDA's untimely announcement, not the policy change itself, already has and will continue to have a negative effect on these tobacco producers' bottom line this year.

1) If confirmed by the Senate as the Deputy Secretary of Agriculture, how will you ensure a more realistic and transparent process that involves more producer input with regards to USDA policy changes?

2) Will you also commit to working with tobacco growers in Kentucky to pursue other tools and programs, such as the Farm Service Agency's (FSA) Emergency Loan (EM) program, that might help offset some of their losses?

Senator Pat Roberts
Questions
Confirmation Hearing of Harden and Bonnie
July 23, 2013

To be submitted for the record:

Ms. Harden:

1. We have heard consistently from America's farmers and ranchers that crop insurance is the cornerstone of the farm safety net. Farmers, their bankers and the overall agricultural economy depend on the security provided by crop insurance. What role do you see crop insurance playing in the future?

2. Last year's implementation of new regulations regarding the National School Lunch Program caused tremendous concerns for Kansas students and families, particularly maximum calorie limits.

   While FNS has provided temporary relief for several of the requirements, regulations for the National School Breakfast Program and Competitive Foods (Snacks) go into effect this upcoming school year. Will USDA continue to work with Congress to provide much needed flexibility as these regulations are implemented?

3. As USDA's Foreign Agriculture Service and the office of the United State Trade Representative and work to negotiate the Trans Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (T-TIP), what is the outlook for increased market access American agriculture products including US beef and pork?

4. We still have unresolved issues with pork market access into Russia, China, and Taiwan. What is the status of those issues?

5. USDA's Animal and Plant Health Inspection Service (APHIS) has a proposed reorganization which would result in Kansas losing the presence of an area veterinarian in charge (AVIC). The Kansas Department of Agriculture works closely and on a regular basis with the AVIC currently in Kansas and is concerned that a physical move of this position to Nebraska will impact Kansas in a negative way, especially as the National Bio and Agro-Defense Facility (NBAF) will be located in Manhattan, Kansas. What is the status of the reorganization proposal?

6. USDA's National Agriculture Statistics Service (NASS) Kansas Field Office is operated in cooperation with the Kansas Department of Agriculture (KDA) and is known as Kansas Agricultural Statistics. In order to finds ways to more effectively collect statistical data KDA has proposed several opportunities for collaboration including a pilot methodology for electronic surveying. What is the status of KDA's offer and are there

further opportunities to improve cost efficiencies and cooperation between NASS and KDA?

Mr. Bonnie:

1. Mr. Bonnie, Kansas farmers, ranchers, and landowners are concerned with US Fish and Wildlife listing the Lesser Prairie Chicken as an endangered species. Specifically, most are concerned with the designation of wide swaths of the state as prairie chicken habitat that would inhibit producers' ability to voluntarily manage their operations on their private land.

2. While Fish and Wildlife Services will not make a final decision on a listing until March 30, 2014, will NRCS work to pursue voluntary conservation plans for the lesser prairie chicken habitat?

3. One of the most popular USDA programs in Kansas is the Environmental Quality Incentives Program (EQIP). In FY 2012 there were over 1,300 EQIP contracts covering over 314,000 acres and $25 million in projects dollars obligated for voluntary conservation practices in Kansas alone. As Undersecretary will you continue to work with us to make sure these programs remain as beneficial partnerships?

4. As cover crops gain popularity they are also becoming an emerging issue in Kansas agriculture. For example, producers prevented from terminating cover crops before planting their program crops due to rain or wind have in some cases lost crop insurance coverage. What do you see as the future for cover crops as a practice and how can NRCS engage with producers, farm organizations, and the rest of the USDA to get there?

5. As the administration and USDA looks to confront climate change, will you work with Congress to address concerns and find solutions or operate through regulations and pursue executive orders?

SENATE COMMITTEE ON AGRICULTURE, NUTRITION & FORESTRY

FULL COMMITTEE HEARING

Confirmation Hearing

Krysta Harden – Deputy Secretary of Agriculture

Robert Bonnie – Under Secretary for Natural Resources and Environment

Tuesday, July 23, 2013 – 10:30 AM

Questions for Witnesses

Senator John Thune

Deputy Secretary Krysta Harden

Questions:

1. Other than passing a Farm Bill – what would you say is USDA's greatest need or ask from Congress today?

2. What role do you see the climate change debate playing in future policies and administrative actions at USDA?

3. Ms. Harden, crop insurance is the primary safety net tool for farmers in my home state of SD as well as most commodity crop producers across the United States. The direct payments authorized in the 2008 and preceding Farm Bills did not have a significant impact on stabilizing and protecting commodity crop production for most producers and Commodity Title proposals in the 2013 House and Senate Farm Bills will do little to protect commodity crop production for most producers in the future, when commodity prices drop or production losses occur – however, adequate crop insurance protection will continue to be crucial.

   Crop insurance must be kept actuarially sound and keeping it affordable is critical, especially in higher risk areas like the Western Corn Belt and in light of multiple years of prevent plant claims.

   Would Risk Management Agency be willing to explore whether it currently has legal authority to allow reduced prevented planting coverage or no coverage at all? And if such authority exists would RMA consider a limited pilot program?

Robert Bonnie – Under Secretary for Natural Resources and Environment

Questions:

1. On July 9, 2013, all three of the South Dakota delegation sent a letter to Secretary Vilsack asking for his assistance in maintaining a charter for the Black Hills National Forest Advisory Board and appointing members to the Board in a timely manner. Over the past 4 ½ years, the BHNF has had to cancel 17 meetings of the Advisory Board either because the charter had expired or because there weren't enough members to constitute a quorum. The Advisory Board was originally chartered to provide a venue for stakeholders and the Forest Service to discuss management issues on the BHNF. I would note also that the Black Hills National Forest Advisory Board conforms to the USDA and FS's expectation of more collaboration regarding national forest management. So, can we count on you to recognize the significance and importance of the Black Hills National Forest Advisory Board and to do everything in your power to ensure that no more meetings are cancelled due to failure of USDA to maintain the Charter and membership?

2. The timber harvest levels on the Black Hills National Forest and the Rocky Mountain Region are less than what we should be harvesting to aggressively respond to the mountain pine beetle epidemics, the spruce beetle epidemics, the potential for catastrophic fires, and also the level needed by the forest products companies that depend on the national forests for timber supplies. The Forest Service's restoration strategy repeatedly advocates for "increased pace and scale of restoration", managing for increased resiliency, and for a harvest level of 3 billion board feet (bbf) from the national forests. Unfortunately, the restoration strategy is short on details of how to achieve a 3 bbf program. Even worse, the Forest Service lost ground in FY 13 towards 3 bbf. Do you agree with the restoration strategy? If so, how do you plan to get the Forest Service back on track toward "increased pace and scale", increased resiliency, and a 3 bbf program?

3. The Black Hills National Forest, and many other national forests, was not able to hire their full planned complement of seasonal workers this summer due to problems with the Forest Service's hiring process. These seasonal workers are critical to many national forest programs, and not being able to hire the full complement is negatively affecting those programs. Frankly, I find this situation unbelievable. How did this happen, what effect is that having on those programs, and most importantly, what steps would you anticipate taking to fix the underlying problems so this never happens again?

4. Fire suppression costs and periodic "fire borrowing" are both having a serious detrimental effect on the Forest Service's ability to implement on-the-ground programs, including projects designed to implement proactive management practices to reduce the potential for catastrophic fires. What are your thoughts on how to work with the Congress to address this problem?

5. On June 18, 2013 the Energy and Natural Resources Committee reported out S. 327, the Good Neighbor Forestry Act. This bipartisan legislation, of which I am a cosponsor, authorizes the Forest Service and the BLM to enter into cooperative agreements and contracts with state foresters to provide forest, rangeland, and watershed restoration and protection services. Currently, only Colorado and Utah have this important tool and I believe this authority would be beneficial to help fight the pine beetle infestation, and for fuel reduction thinning and invasive species work across federal, state, and private lands. Do you support Good Neighbor Authority in general and the Good Neighbor Forestry Act in particular to assist both federal and state agencies to improve forest health?

Senate Committee on Agriculture, Nutrition & Forestry
23 July 2013
Robert Bonnie
Questions for the record

Chairwoman Stabenow

Question for Mr. Bonnie

1. Green Building/Wood Products Research: A few years ago, the Secretary announced plans to promote wood use in building construction and invest further in research to evaluate wood products life cycle impacts. As the Secretary mentioned, this initiative could support jobs and strong rural economies, healthy working forests, and help mitigate climate change because wood products store carbon.

   What is the status of this initiative, and in particular, have you fully invested in the research necessary to evaluate the life cycle impacts of wood products? What will you do in your new role to continue to support this initiative?

   Response: In 2011 USDA adopted a policy to preferentially use wood in buildings. Forest Service research demonstrates the environmental benefits of using wood over other construction materials and continues to examine ways to more precisely measure these. USDA and the Forest Service will continue to search for opportunities to highlight the value of wood as a green building material. USDA is also working with other federal agencies to consider wood as a green building material. USDA will continue efforts to invest in research into uses for wood products.

2. The recent DC Circuit biomass decision has created significant uncertainty and on the ground impacts for biomass and pulp and paper facilities that have recently received permits or have construction or modification permit applications pending.

   Do you agree that finalizing a rule in a timely fashion is now more important than ever in light of the D.C. Circuit decision and the uncertainty it has caused for the forest products industry.

   Response: Woody biomass can be a renewable resource and, as such, can have significant greenhouse gas benefits relative to fossil fuels. In addition, markets for woody biomass can help support restoration and management of our National Forests while providing an economic incentive for private landowners to maintain forests. The DC Circuit decision may create uncertainty in the forest products industry with respect to how biogenic CO2 emissions from woody biomass and other biogenic sources will ultimately be treated under Title V of the Clean Air Act. USDA will continue to work with EPA on this issue.

What are the implications that this policy could have on existing facilities that are in the process for new permits or modifications, as well as future investments?

Response: EPA had adopted a three year deferral on permitting related to biogenic emissions for the purpose of gathering the science and technical information necessary to support of a rule regarding treatment of biogenic emissions under Title V of the Clean Air Act. The DC Circuit Court's action removed the three year deferral which will create uncertainty as to the treatment of biogenic CO2 emissions from new and modified facilities that burn biomass. As I stated earlier, we will work with EPA on this issue.

How have you worked together with EPA on the Tailoring Rule amendments to ensure that USDA's expertise on forest carbon is fully reflected?

Response: Over the last several years, USDA scientists in the Forest Service and the Climate Change Program Office have provided EPA with substantial information related to lifecycle emissions and sequestration associated with use of woody biomass as energy. USDA will continue to work with EPA on this topic.

Senator Klobuchar

Question for Robert Bonnie

1. The Environmental Protection Agency is currently working to develop a rule to determine the carbon accounting of energy from biomass sources such as wood. The Department of Agriculture and the Forest Service have done a great deal of research on this topic. How would you collaborate with the EPA to ensure that the EPA uses the best possible science when looking at the full life-cycle analysis of these renewable resources?

   Response: Woody biomass is a renewable resource and, as such, can have significant greenhouse gas benefits relative to fossil fuels. In addition, markets for woody biomass can help support restoration and management of our National Forests while providing an economic incentive for private landowners to maintain forests. Over the last several years, scientists in the Forest Service and the Climate Change Program Office have provided EPA with substantial information related to lifecycle emissions and sequestration associated with use of woody biomass as energy. USDA will continue to work with EPA on this topic.

Senator Gillibrand

Questions for Mr. Robert Bonnie

1. Creating an agriculture system that produces wholesome and safe food while protecting our nation's environment is truly a mounting challenge in the 21st century. In your new position, what will be your top priorities in order to meet this challenge?

Response: In response to the challenges of protecting our nation's environment while ensuring a productive and safe food supply, my priorities will focus on three key areas: restoring ecosystems; strengthening rural communities; and managing wildland fires. Through strategic partnerships, I will work with the Forest Service and NRCS to continue to accomplish more work, yield more benefits for the people we serve while also sustaining forest and grassland ecosystems for future generations.

2. Small and medium sized dairy farmers face very unique and difficult challenges for their truly great contributions to our nation's food supply. How will you be able to ensure that policies like those for the Standard for Nutrient Management plans are created with full consideration and collaboration with dedicated dairy farmers in places like Upstate New York? And how will you improve the Natural Resource Conservation Service's future collaboration with dairy and specialty crop farmers, as well as extension experts?

   Response: NRCS has made a concerted effort nationally to obtain input from those who are impacted by the standard and increased flexibilities based on that input. Once a national standard is released, NRCS State offices collaborate with State-based partners, (e.g., land grant university technical experts, water quality control experts, agricultural industry experts, consultant groups, and farmers) to ensure that local field and farm management factors are considered throughout the development of State nutrient management standards. State conservation practice standards are designed to deliver planning products that are effective and fit local conditions. NRCS in New York worked with its partners to tailor its State standard, which resulted in a standard that reflects State conditions and is suitable for voluntary conservation efforts. If confirmed, I will work with NRCS to maximize outreach opportunities to ensure that the development of technical standards reflect input from and collaboration with agriculture and natural resource communities.

3. The USDA OIG recently published an audit in February 2013 of the agency you are nominated to lead, which identified that NRCS needs to improve its compliance activities by developing a comprehensive, integrated compliance strategy; as well as the need to improve the organization's structure and dynamics, and to better target and management risk. Please describe what actions you will take in your new position in order to address these issues, as well as your timeline for their completion.

   Response: The development of a comprehensive, integrated compliance strategy is well underway. By the end of this fiscal year NRCS will have a full plan developed and will implement the plan in FY2014. NRCS is also working to develop and implement a thorough risk assessment of program operations. My goal, if confirmed, is to ensure implementation of the compliance strategy is on track, NRCS will be able to determine how well internal controls are functioning and how they can be improved; identify, manage and reduce risk to the agency; promote and maintain economical, efficient and effective operations; and protect resources against fraud, waste and abuse.

Sen. Bennet

Questions for Robert Bonnie:

1. Colorado's forests have had a rough few years. Beyond catastrophic wildfires, we've also seen unprecedented insect epidemics affecting huge stands of timber across the state. In February of 2012, the Forest Service published a restoration strategy to address forest health issues in a more coordinated way. I often hear about these approaches in Colorado—including more collaborative projects with industry and environmental groups, more mechanical thinning, and more jobs in the forest products industry. Can you discuss the status of implementing the Forest Service's restoration strategy? How can Congress and this Committee work with you to achieve the worthwhile goals set out in that strategy?

   Response: Colorado's forests, like so many forests throughout the West, are at risk due to uncharacteristically severe wildfires, pine bark beetles and diseases. Such stresses and disturbances are impacting forests, grasslands, and watersheds on an unprecedented scale. If confirmed, I would work with the Forest Service to restore and manage our forests so that they are more resilient to a variety of threats, particularly catastrophic wildfire. Thinning, hazardous fuels removal, reforestation, habitat enhancements, invasive species control, and other measures can help to make an ecosystem more resilient and more capable of delivering benefits, such as protecting water supplies and supporting native fish and wildlife. If confirmed, I will work with the Forest Service to enhance restoration outcomes such as reduced risk from fire, insects, and diseases; maintaining clean drinking water for communities; and supporting rural jobs and economic opportunities.

2. People back in Colorado have various perspectives to share when asked about the barriers to getting more restoration work done on our national forests. Some say it's all about a lack of money; others say environmental analysis and lawsuits. Most all will agree that we should do more work on the front end to reduce our risk of wildfire. As the saying goes – an ounce of prevention is worth a pound of cure. Can you share your perspective on the largest barriers to achieving your restoration and fuels reduction goals on our national forests?

   Response: Forest restoration and management are a priority for the Forest Service and the Department, and if confirmed I will work hard to find ways to increase the pace and scale of this work. There is no single prescription for getting more work done in the woods. Budget resources are important. Over the long-term this means addressing the impact of rising fire suppression costs on the entire Forest Service budget. With respect to environmental analysis, undertaking larger scale analyses and developing new ways to streamline NEPA analyses while maintaining the integrity of environmental analyses is important. Collaborative approaches can build public support for this work and reduce litigation risks. If confirmed, I look forward to working with you and the members of the Committee, as well as the Forest Service and stakeholders throughout the country to continue to address this issue.

3. In March of this year, I introduced S. 651, the Thompson Divide Withdrawal and Protection Act. The legislation would withdraw nearly 200,000 acres of White River National Forest land in Colorado from future mineral leasing. The area's undeveloped character is a main driver of the local economy and the legislation is widely-supported by the communities in this region. Will the Department continue to collaborate closely with me and my office on this legislation and the implications of Forest Service planning decisions in the area?

   Response: Yes, I look forward to continuing close collaboration between the Department and your office on this legislation and to discussing the implications of Forest Service planning decisions in your area.

Ranking Member Cochran

Questions for Robert Bonnie

1. The Senate Farm Bill proposes to consolidate the Farmland Protection Program (FPP), Grassland Reserve Program (GRP), and the Wetlands Reserve Program (WRP) easement programs into one larger program with two separate components: agricultural land easements (ALE) and wetland reserve easements (WRE). After the 2008 Farm Bill, it is my understanding that USDA encountered difficulties in finalizing the FPP regulations. Despite the agency's efforts, I understand that the FPP certification process has resulted in one certified entity to date. A new easement program will rely on this existing certification process for new land easements. I am concerned about the development of new rules and regulations that could delay or have a negative impact on the wetlands reserve portion of a consolidated easement program. If confirmed, will you commit to work with me and this Committee to ensure that the certification process developed for land easements is practical and less cumbersome? If confirmed, what steps will you take to make sure that any possible delay on the ALE portion of the consolidated easement program does not delay action on the wetlands reserve portion?

   Response: While the Agricultural Conservation Easement Program (ACEP) will be a new program, there are only very minor changes in the consolidated program compared to the original source programs of FPP, GRP, and WRP. Therefore, the promulgation of a new, consolidated regulation to implement both components of the new program should be able to proceed expeditiously and not delay action on wetlands conservation and other portions of the easement program. I am committed to working with you and the Committee to ensure that all programs are implemented in a streamlined manner that allows agricultural landowners to participate fully in our easement programs while ensuring proper internal controls and safeguards are placed upon the use of Federal taxpayer funds.

2. There have been several recent USDA Office of Inspector General (OIG) reports which recommend the Natural Resources Conservation Service (NRCS) improve the policies and procedures regarding the administration of the Farmland Protection Program. If

confirmed, what steps will you take to ensure that the proper internal controls and safeguards are in place to review the States administration of the easement programs and the overall operations of the non-governmental (NGO) organizations' role in the programs?

Response: Recent oversight efforts by NRCS and by external auditors have identified areas for improved internal controls and safeguards for the Farmland Protection Program. These safeguards include an overview of state obligations and payment processes; a review of FRPP Cooperative Agreements to verify eligibility, availability of funds, and required agreement provisions; development of automated tools; and training modules and requirements based on program specialty. If confirmed I will work to ensure NRCS implements necessary safeguards that ensure the effective use of conservation funding.

3. One of the programs under your purview is the Wildlife Habitat Incentives Program (WHIP). The Senate-passed Farm Bill proposes some changes to the program. If confirmed, should a new Farm Bill be enacted into law, will you commit to work with me and this Committee to implement this program in a manner that maximizes fish and wildlife habitat in conjunction with working farms and forests?

   Response: Farm Bill programs like WHIP have been very important in conserving and restoring fish and wildlife habitat on our working lands. The Administration is looking forward to a positive conclusion and passage of a new Farm Bill. If confirmed, I commit to working with you to implement new programs in order to maximize fish and wildlife habitat in conjunction with farms and forests.

4. The Senate-passed farm bill includes a few key changes to strengthen and streamline Conservation programs. More than 60 percent of Mississippi's forestland is owned by families and individuals, and the Farm Bill conservation programs are key to making sure these family forest owners have the tools and resources they need to conserve their forests and keep them healthy. Throughout the implementation of the Farm Bill, what will you do to ensure forestry remains a priority within the conservation programs and that forest owners have access to the tools and resources they need?

   Response: Conserving our working forests lands is a priority for me as these lands provide the public enormous benefits while supporting jobs in forest industry. The Secretary has encouraged Forest Service and NRCS to work together in supporting forest management and conservation on our working lands. I understand and value the importance of private landowners and, if confirmed, will be dedicated to ensuring that forest owners and managers have the conservation tools they need to keep their lands productive and healthy. Already forest owners are participating significantly in the conservation programs administered by NRCS, working together to improve forest stand health, manage forests for habitat, and increase the economic value of forestlands. Through State Foresters, the Forest Service also supports access to important technical assistance to forestland operators participating in conservation programs. Through new

initiatives, what steps will you take to ensure that the proper landowner outreach and education in conservation programs to continue to be strong.

5. The concept of locally-led conservation has been a cornerstone of conservation policy for decades. The Environmental Quality Incentives Program (EQIP), one of the largest and most popular programs among producers, is designed to assist producers with implementing specific conservation practices on the ground and the delivery of the program relies heavily on input at the state and local level. If confirmed, how do you intend to balance the emphasis on locally-led conservation while addressing national priorities through landscape initiatives? Would it be your intention to focus on a more
top-down, national initiative approach with regard to administering EQIP and other conservation programs?

   Response: The Environmental Quality Incentives Program has been a great success, due in large part to the emphasis on locally led conservation efforts. . If confirmed, I will remain committed to retaining the program's locally led, voluntary conservation projects, while sustaining the flexibility for these local priorities to be addressed at the landscape level, where appropriate.

6. A number of conservation organizations have expressed concern with the funding level of conservation technical assistance in recent years. I, along with several of my colleagues, share the concern that lowered funding for conservation technical assistance means that NRCS is having difficulty in delivering programs to producers and private landowners. If confirmed, what steps will you take to work with the Office of Management and Budget (OMB), conservation groups, and Congress to make sure that USDA has the resources to properly deliver the conservation programs authorized by the Agriculture Committee? Can you provide a detailed breakdown of what NRCS funds for conservation technical assistance?

Response: I agree that technical assistance is critical to achieving the voluntary conservation benefits for the environment and our nation's farmers, ranchers and private landowners. CTA is the foundation of conservation delivery, providing for on the ground technical assistance with conservation planning and implementation, as well as the avenue for developing needed conservation tools and technologies. CTA is funded under the Agency's Conservation Operations account through the annual appropriations process. CTA was funded at $744.8 million in FY 2011, $729.5 million in FY 2012, and $675.8 million in FY 2013, reflecting sequestration and rescission. Specifically, CTA funding supports the following activities: direct technical assistance to farmers, ranchers, forest owners, and others to plan and implement conservation measures; area-wide conservation planning assistance to communities collaboratively with units of government; development and transfer science-based standards, tools, and technologies for assessment, management, and conservation of natural resources; implementation of conservation compliance; and acquisition and analysis of natural resource inventory and conservation effects data.

In this increasingly difficult budget environment, USDA is committed to providing our customers with high-quality service while managing reduced budgets. That is why USDA continues to look for cost savings in all areas in order to deliver the necessary technical assistance to farmers, ranchers and private landowners. If confirmed, I will work with this Administration and
Congress to ensure that USDA has the necessary resources to carry out its conservation mission.

7. It has come to my attention that NRCS has experienced a considerable backlog in wetland determinations in four states: Iowa, Minnesota, North Dakota and South Dakota. It is my understanding that as of February 2013, NRCS had a backlog of over 14,000 wetland determinations and NRCS directed additional conservation technical assistance resources to address this backlog. To date, what progress has been made on this significant backlog? Given the current backlog, staffing issues, and workload, do you think USDA will have to shift additional resources away from some states?

   Response: In the Prairie Pothole Region, NRCS has two challenges: reduce the backlog of wetland determinations and ensure that our data is reliable and accurate. NRCS has reduced the backlog by 40% by increasing the investment in targeted areas and streamlining processes, and the agency is still working to decrease the backlog even further. NRCS is implementing improved data management systems as well, to ensure that information on wetlands, backlog, and determination requests is complete and accurate. If confirmed, I commit to working with you to make further improvements in this area.

8. NRCS has the authority to enter into cooperative agreements with other Federal, state, or local entities as well as non-profits, for-profits, and other entities. Excluding the cooperative agreements entered into through a conservation program, how many active cooperative agreements is NRCS party to? Can you explain the process NRCS uses in determining whether or not to enter into a cooperative agreement and how the cooperative agreements are funded? Given recent budget conditions, how does NRCS determine which cooperative agreements to continue and which to terminate?

Response: NRCS enters into cooperative agreements with partners for the delivery of technical assistance ("boots on the ground") at the National and State levels. For FY 2013, NRCS has 34 such agreements at the national level. In addition, NRCS State offices may enter into agreements with local entities, such as soil and water conservation districts, to provide technical services in support of conservation.

All cooperative agreement awards are required to be competitive unless certain requirements are met that deems competition is not appropriate for a particular agreement (7 CFR 3015.158). Decisions about entering into any cooperative agreement are based on whether it furthers the Agency mission. NRCS has a quality control process to ensure that agreements being proposed have been reviewed and approved by the appropriate agency leadership and that they fall within the agency's mission.

All agreements are time bound and specify clear deliverables. If the partnering entity does not maintain compliance, NRCS as the awarding agency will implement suspension/termination procedures (7 CFR 3016.43 and.44).

Funding for cooperative agreements come from discretionary and mandatory technical assistance funds made available to carry out the agency's mission and conservation initiatives.

9. There has been much discussion about what the proper role is for the Federal government in establishing various types of environmental credit trading markets. Over the past several years, NRCS has awarded several grants that some think lay the groundwork for USDA to establish credit markets. What is your opinion about the proper role of government in establishing these markets? What authority do you think USDA has in trying to develop these types of markets? For example, some constituencies believe USDA has the authority to buy these types of credits. Do you agree or disagree with this philosophy? Do you think USDA's conservation programs should be altered or administered in any way to facilitate the establishment of these markets?

   Response: Environmental markets are one of several emerging tools that USDA believes can accelerate conservation adoption, achieve environmental improvement at lower cost, and bring additional resources to support private lands conservation and complement USDA's traditional cost-share programs Section 2709 of the 2008 Farm Bill provides specific direction for USDA on environmental markets, including directing the Secretary to establish technical guidelines that outline science-based methods for measuring

environmental services from land management USDA has worked to develop these technical guidelines and science-based methods over the last several years. As you note, NRCS has been a leader in supporting the development of environmental markets and trading programs, both through financial and technical assistance. These grants will help farmers, ranchers and forest landowners and many other stakeholders develop environmental markets through real world, on-the-ground projects. In a time of declining federal funding, the nation must continue its conservation legacy through new approaches to both conservation and regulation.

10. USDA has been working with other federal agencies on the concept of agricultural certainty for some years. If confirmed, what actions will you take to help finalize agreements that recognize once a producer or landowner is in compliance with certain regulations that he or she should have safe harbor from future changes to those regulations? What do you view is USDA's role and how will you work to advance these agreements related to agricultural certainty?

    Response: *Certainty programs give producers assurances that if they implement specific conservation practices on their lands and maintain those practices, they will be in compliance with state and federal regulations – and won't be asked to do more for a set period of time. If confirmed, I will work with NRCS to expand these voluntary certainty programs so that landowners who wish to participate can receive assurances that they can continue to produce food and fiber while also protecting natural resources. .*

11. The Agriculture Reform, Food and Jobs Act of 2013 includes permanent reauthorization of Stewardship End-Result Contracting. I have heard from a broad coalition of forestry stakeholders encompassing land managers, conservation groups and the forest products industry expressing support for the reauthorization of this authority. I know many states, including Mississippi, use this authority to achieve land management goals while meeting local and rural community needs. Some stakeholders express concern that the U.S. Forest Service will use this authority to replace and reduce the Forest Service timber program. How do you view the role of stewardship contracting authority? If confirmed, will you work to assure this Committee and forestry stakeholders that this authority will not attempt to diminish or replace the Forest Service timber program?

    Response: *Stewardship contracting is a valuable tool to increase efficiency by eliminating the need to issue multiple contracts and reducing the number of financial transactions to accomplish restoration work. It allows for longer contract periods that provide more security to wood-working companies, encourage investments in equipment, and contribute to healthier rural communities. Collaboration with local communities is a key component of successful stewardship contracting, starting early and continuing throughout planning, implementation, and monitoring. This has reduced conflict and has resulted in fewer appeals and lawsuits.*

    If confirmed, I will work to assure both the Committee and forestry stakeholders that Stewardship Contracting is a valuable tool to accomplish restoration work and that it is

complimentary to the timber program ultimately allowing the Forest Service to do more work in the woods.

12. Forests help provide clean drinking water, critical wildlife habitats, recreational opportunities, sustainable and renewable resources, and economic viability for rural communities across the country. While I consider our National Forests to be national treasures, I am also a firm believer that a primary mission of the Forest Service is to administer and oversee working National Forests that provide multiple uses to the public. Active forest management and landscape restoration work is critical to maintain the health of our National Forests. I have some concerns that the Administration's FY2014 budget proposes to reduce the scale of forest restoration on National Forests even after the agency acknowledged the need to increase management in 2012. For example, most National Forests in Region 8 are harvesting significantly less timber than called for in their current forest plans. If confirmed, can you commit to working with me and this Committee to improve performance in our National Forests?

    Response: I am absolutely committed to increasing the pace of restoration on our National Forest System lands. If confirmed, I would welcome the opportunity to work with you and the Committee to increase active management on national forests.

13. If confirmed, your position will oversee the U.S. Forest Service. The U.S. Forest Service has been working to implement the Large Airtanker Modernization Strategy with the sole purpose of upgrading the aging airtanker fleet with –next generation‖ airtankers. As Under Secretary for Natural Resources and Environment how much involvement will you have in advancing this priority? What would an updated fleet of aerial assets, including airtankers and scoopers, look like in your view – in terms of aircraft mix and how these planes are owned and operated? I understand that the U.S. Forest Service recognizes the benefits that scooper aircrafts can add as a tool to aerial fire suppression efforts and the agency has been working with the Department of Interior to add an additional scooper aircraft to the fleet. Can you provide a status update of this interagency process and when it is expected to be completed?

    Response: I recognize how critical it is for the Forest Service to successfully implement the Large Air tanker Modernization Strategy. If confirmed, I would play integral role in advancing that implementation.

    I agree with the Forest Service's determination that a core fleet of 18-28 Next Generation large air tankers (LATs) is needed, comprised of a mix of aircraft makes/models (including scoopers) and provided by a variety of sources, to meet the firefighting challenges of the future. Private industry has been, and will continue to be, a key source of air tankers for the Federal wildland firefighting effort. This mix, which would include Next Generation large (Type 1 and Type 2) air tankers, water scoopers, single engine air tankers (SEATs), very large air tankers (VLATs) and heavy helicopters, is necessary to continue to provide effective aerial support for managing wildfires.

In the long term, I will support the agency as it continues to explore the costs and benefits of a variety of ownership and contract options to meet wildfire mission requirements.

In order to facilitate progress in awarding a contract for a modern, certificated, proven purpose built scooper aircraft, the Forest Service has embarked upon a procurement process which should result in a contract by approximately mid-September.

14. On July 2, 2013, the Secretary of Agriculture issued a Memorandum addressing Sustainable Forestry in Southeast Alaska. In that memorandum the Forest Service is directed to transition the harvest from old growth to young growth over a period of 10 to 15 years while maintaining an integrated wood products industry and sustaining communities in the region. How do you envision this transition occurring over the 10 to 15 year period? Specifically, how will you, if confirmed, ensure that this transition successfully sustains the timber jobs and communities in Southeast Alaska?

    Response: The Secretary laid out two goals in the Memorandum: (1) transitioning the Tongass National Forest to young growth timber, and (2) doing so in a way that –preserves a viable timber industry that provides jobs and opportunities for the residents of Southeast Alaska.‖ As part of the transition, Forest Service will provide –bridge timber‖ that will provide a supply of old growth timber while increasing young growth sales. If confirmed, I expect to play a lead role in USDA in monitoring the progress of the eight action items described in the Secretary's Memorandum and finding ways to ensure that the transition both conserves the Tongass and the forest industry at the same time.

15. On May 24, 2011, the Alaska District Court vacated the Tongass exemption and reinstated the 2001 Roadless Rule on the Tongass National Forest (Organized Village of Kake, et al. v. USDA, et al.). At this time, the Tongass National Forest is subject to the provisions of the 2001 Roadless Rule. The District Court, however, did specifically state that the Forest Service may reevaluate its approach to roadless area management in Alaska. If confirmed as Under Secretary, will you commit to reevaluate the current approach to roadless area management to include considering a new rulemaking on the application of the roadless rule in Alaska?

    Response: On March 4, 2011, the Alaska District Court vacated the Tongass Exemption Rule and reinstated the roadless rule on the Tongass National Forest (Organized Village of Kake, et al., v. USDA, et al., Case No. 1:09-cv-00023). On June 17, 2011, the State of Alaska appealed to the Ninth Circuit Court of Appeals. The State's appeal is still pending. At this time, both National Forests in Alaska are subject to the provisions of the roadless rule as provided for in the District Court's Judgment. If confirmed as Under Secretary, my focus will be on the transition to young growth in the Tongass and we have no plans to undertake a state-based roadless rule in Alaska.

16. In many states, including Mississippi, the forest products industry is incredibly important to the rural economy, rural landowners, and working families. I appreciate the efforts of USDA to promote wood products in building construction. One key piece of USDA's

initiative was investing in research to ensure that the latest science and technology for wood use is available. Can you provide information on USDA's commitment to green building and wood products research? What will you do to ensure this research continues if your nomination is approved?

Response: Forest Service research demonstrates the environmental benefits of using wood over other construction materials and continues to examine ways to more precisely measure these benefits. USDA and the Forest Service will continue to search for opportunities to highlight the value of wood as a green building material. USDA is also working with other federal agencies to consider wood as a green building material. Forest Service R&D will continue to support Green Building activities.

17. The Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act (RESTORE Act) established the Gulf Coast Ecosystem Restoration Council which is comprised of governors from the five affected Gulf States, the Secretaries from the U.S. Departments of Agriculture, Interior, Commerce, Homeland Security, the Secretary of the Army, and the Administrator of the Environmental Protection Agency. It is my understanding that Secretary Vilsack has identified the Under Secretary for Natural Resources and Environment as his designee on this Council. The Council oversees the Gulf Coast Restoration Trust Fund which was established in response to the Deepwater Horizon oil spill with the sole purpose of restoring and protecting natural resources, ecosystems, marine and wildlife habitats, coastal wetlands and the economy of the Gulf Coast region. If confirmed, what steps will you take to ensure that beneficial projects and programs are funded? Will you commit to providing me with regular updates on the Council's activities, particularly USDA's involvement?

Response: As a RESTORE Act Council member, USDA is fully engaged with our State and Federal Council Members and participated in the development of the initial Comprehensive Plan required by the Act. In addition, we have provided insights on environmental compliance issues as well as financial issues likely to occur with an effort of this magnitude. We have also assisted with important outreach efforts not only to the general public but we have also been instrumental in the early efforts to engage Native American Tribes.

USDA has established a permanent Regional Gulf Restoration Team, located in Madison, Mississippi, led by Dr. Homer Wilkes, who was previously the NRCS Mississippi State Conservationist for 19 years. His extensive experience with Gulf issues and long-standing relationships in the Gulf region will greatly enhance NRCS's ability to optimize its Gulf restoration efforts and programs.

If confirmed, I will provide regular updates to your office on the Council's activities with a focus on USDA's involvement.

Sen. Roberts

Questions for Robert Bonnie:

1. Mr. Bonnie, Kansas farmers, ranchers, and landowners are concerned with US Fish and Wildlife listing the Lesser Prairie Chicken as an endangered species. Specifically, most are concerned with the designation of wide swaths of the state as prairie chicken habitat that would inhibit producers' ability to voluntarily manage their operations on their private land.

   Response: No question.

2. While Fish and Wildlife Services will not make a final decision on a listing until March 30, 2014, will NRCS work to pursue voluntary conservation plans for the lesser prairie chicken habitat?

   Response: Since 2010, NRCS has invested about $25 million in financial assistance with producers to make rangeland improvements through this Lesser Prairie Chicken Initiative. This assistance will provide almost 750,000 acres of improved habitat for the LEPC while providing long term grazing lands improvements. If confirmed, I will work with NRCS to support the Lesser Prairie Chicken Initiative and pursue voluntary conservation plans for the lesser prairie chicken habitat.

3. One of the most popular USDA programs in Kansas is the Environmental Quality Incentives Program (EQIP). In FY 2012 there were over 1,300 EQIP contracts covering over 314,000 acres and $25 million in projects dollars obligated for voluntary conservation practices in Kansas alone. As Undersecretary will you continue to work with us to make sure these programs remain as beneficial partnerships?

   Response: If confirmed, I will work with producers and ranchers as partners in Kansas on EQIP and other conservation programs that can increase both the benefit to conservation and the economic prosperity of landowners.

4. As cover crops gain popularity they are also becoming an emerging issue in Kansas agriculture. For example, producers prevented from terminating cover crops before planting their program crops due to rain or wind have in some cases lost crop insurance coverage. What do you see as the future for cover crops as a practice and how can NRCS engage with producers, farm organizations, and the rest of the USDA to get there?

   Response: I believe that the recent expansion of cover crops will continue as farmers learn firsthand the environmental and nutrient benefits associated with planting cover crops. Earlier this year NRCS, RMA and FSA worked together to come up with a simple, consistent policy for cover crops that will provide increased clarity for farmers so those farmers who choose to plant cover crops will have confidence that if the follow the guidelines they will retain full crop insurance coverage. These new rules will go into effect this fall.

5. As the administration and USDA looks to confront climate change, will you work with Congress to address concerns and find solutions or operate through regulations and pursue executive orders?

Response: An important part of USDA's mission is to help farmers, ranchers and forest owners manage risks and ensure access to food, fiber, and a range of services for current and future generations. We know that farmers and ranchers are on the front lines of threat mitigation and adaptation, just as they have been for generations. Over the last several years, USDA has worked to reduce the risks for farmers from climate change through research, extension, cooperative conservation, technical assistance and financial support. This has enabled farmers and natural resource managers to build strong rural economies and expand production, while protecting the environment. The Department's current approach to climate change builds on these proven strategies. USDA's climate change investments have benefits today and will build the infrastructure and capacity in rural communities needed to respond to the challenges ahead. If confirmed, I commit to working collaboratively with Congress and all stakeholders on this issue.

Sen. Thune

Questions for Robert Bonnie

1. On July 9, 2013, all three of the South Dakota delegation sent a letter to Secretary Vilsack asking for his assistance in maintaining a charter for the Black Hills National Forest Advisory Board and appointing members to the Board in a timely manner. Over the past 4 ½ years, the BHNF has had to cancel 17 meetings of the Advisory Board either because the charter had expired or because there weren't enough members to constitute a quorum. The Advisory Board was originally chartered to provide a venue for stakeholders and the Forest Service to discuss management issues on the BHNF. I would note also that the Black Hills National Forest Advisory Board conforms to the USDA and FS's expectation of more collaboration regarding national forest management. So, can we count on you to recognize the significance and importance of the Black Hills National Forest Advisory Board and to do everything in your power to ensure that no more meetings are cancelled due to failure of USDA to maintain the Charter and membership?

Response: The Decision Memorandum approving the appointments to fill vacancies on the Black Hills National Forest Advisory Board was signed by Secretary Vilsack on July 23, 2013.

The Black Hills National Forest Advisory Board serves the important purpose of providing advice and recommendations on a broad range of forest issues such as forest plan revisions or amendments, forest health including fire and mountain pine beetle epidemics, travel management, forest monitoring and evaluation, recreation fees, and site-specific projects having forest-wide implications. I certainly recognize the

significance and importance of the Black Hills National Forest Advisory Board and look forward to working with them.

2. The timber harvest levels on the Black Hills National Forest and the Rocky Mountain Region are less than what we should be harvesting to aggressively respond to the mountain pine beetle epidemics, the spruce beetle epidemics, the potential for catastrophic fires, and also the level needed by the forest products companies that depend on the national forests for timber supplies. The Forest Service's restoration strategy repeatedly advocates for –increased pace and scale of restoration‖, managing for increased resiliency, and for a harvest level of 3 billion board feet (bbf) from the national forests. Unfortunately, the restoration strategy is short on details of how to achieve a 3 bbf program. Even worse, the Forest Service lost ground in FY 13 towards 3 bbf. Do you agree with the restoration strategy? If so, how do you plan to get the Forest Service back on track toward –increased pace and scale‖, increased resiliency, and a 3 bbf program?

   Response: The Forest Service was on track in FY 2012 to increase the pace of restoration and sold more than 2.6 billion board feet of timber. However, as a result of the national effort to reduce Federal budget levels, the agency's funding request for restoration and timber harvest has been reduced from the FY 2013 President's Budget level. As a result, the restoration funding level proposed for FY 2014 is conservatively estimated to yield 2.4 billion board feet of timber volume sold. That being said, if confirmed, I will work with the Forest Service to explore ways to increase efficiencies to increase the pace of restoration through such things as NEPA efficiencies, stewardship contracting and large scale projects.

   The Black Hills National Forest is a national example for increasing pace and scale of restoration , and if confirmed, I am committed to continuing this effort. The Forest has responded with increased harvest and collaboration with partners on an –all lands‖ strategy. Since 2007, annual timber harvest has ranged from 180 to 250,000 ccf, and hazardous fuels have been reduced on 60,000-80,000 acres annually. The Forest is implementing its Mountain Pine Beetle Response Project which authorizes forest health treatments on 248,000 acres.

3. The Black Hills National Forest, and many other national forests, was not able to hire their full planned complement of seasonal workers this summer due to problems with the Forest Service's hiring process. These seasonal workers are critical to many national forest programs, and not being able to hire the full complement is negatively affecting those programs. Frankly, I find this situation unbelievable. How did this happen, what effect is that having on those programs, and most importantly, what steps would you anticipate taking to fix the underlying problems so this never happens again?

   Response: One of our most critical leadership responsibilities is to anticipate obstacles we will confront and adequately position the organization to successfully navigate

through them. During this recent spring hiring season, we fell short of this expectation not just on the Black Hills National Forest, but across the Forest Service.

A convergence of changes to the agency's hiring system and authorities hampered our hiring efforts this year. In response to these difficulties, the agency has instituted a course correction and has already achieved progress in filling positions, with significant hiring occurring this summer. If confirmed, I will ensure a full partnership between hiring managers, leaders and technical specialists—working together to examine processes and missteps to ensure we find solutions.

4. Fire suppression costs and periodic –fire borrowing‖ are both having a serious detrimental effect on the Forest Service's ability to implement on-the-ground programs, including projects designed to implement proactive management practices to reduce the potential for catastrophic fires. What are your thoughts on how to work with the Congress to address this problem?

   Response: *Costs of fire suppression have increased to consume nearly half of the entire Forest Service budget. In FY 1991, fire activities accounted for about 13 percent of the total agency budget; in FY 2012, it was over 40 percent.*

   Staffing within the agency has also shifted to reflect an increased focus on fire. Since 1998 fire staffing within the Forest Service has increased 110 percent. Over the same time period, National Forest System staffing has decreased by 35 percent and Forest Management staffing has decreased by 49 percent.

   If confirmed I will work with Congress to identify ways to fund programs while minimizing the effect on all Forest Service operations.

5. On June 18, 2013 the Energy and Natural Resources Committee reported out S. 327, the Good Neighbor Forestry Act. This bipartisan legislation, of which I am a cosponsor, authorizes the Forest Service and the BLM to enter into cooperative agreements and contracts with state foresters to provide forest, rangeland, and watershed restoration and protection services. Currently, only Colorado and Utah have this important tool and I believe this authority would be beneficial to help fight the pine beetle infestation, and for fuel reduction thinning and invasive species work across federal, state, and private lands. Do you support Good Neighbor Authority in general and the Good Neighbor Forestry Act in particular to assist both federal and state agencies to improve forest health?

   Response: *Good Neighbor Authority has worked well in both Utah and Colorado and has helped the Forest Service get important restoration work done on NFS lands, including reducing hazardous fuels, addressing insect outbreaks, post fire recovery work, and riparian area improvement. The authority encourages efficient work implementation on Federal, state, and private lands. I fully support Good Neighbor Authority and if confirmed, I pledge to work with you and other interested members in crafting an expansion of that authority.*

Senator Boozman Questions for the Record

For Mr. Robert Bonnie, Nominee for Under Secretary of Agriculture
for Natural Resources and Environment
U.S. Senate Committee on Agriculture, Nutrition and Forestry
July 23, 2013

Mr. Bonnie:

1) You once expressed your concerns about the impact "when food-producing land is diverted for energy production." You noted that corn ethanol production can lead to a "significant increase in greenhouse gas emissions relative to gasoline when indirect land use change is taken into account." I know that the EPA leads on the RFS, but you will be involved in interagency discussions, if confirmed. Will you advocate for RFS repeal or reform, if confirmed?

Response: Implementation of the RFS is not within the jurisdiction of USDA. However, the RFS is a critical piece of the Administration's all-of-the-above energy strategy, providing consumers a choice at the pump and providing critical economic develop opportunities across rural America. If confirmed, I look forward to working with all stakeholders, including members of Congress, on building opportunities to continue to develop a competitive renewable fuels industry.

2) You have been supportive of a carbon tax or cap-and-trade, despite the fact that such a regime is regressive, since low-income people use more energy as a percent of their income. You also mentioned that it can harm America's farmers and domestic job-creators. Some carbon tax proposals include complex schemes – such as redistribution and tariffs – to address these challenges. Could you explain some of the challenges that such schemes would present?

Response: Throughout my career, I have worked on the development of voluntary carbon markets that would reward farmers, ranchers and forest landowners for stewardship activities that sequester carbon or reduce greenhouse gas emissions. Challenges associated with developing carbon markets include ensuring that measurement and transaction costs remain low and that landowners have access to the technical assistance necessary to help them participate in such markets if they so chose. Section 2709 of the 2008 Farm Bill directs the Secretary to develop technical guidelines for environmental markets and to prioritize guidelines related to landowner participation in carbon markets. If confirmed, I will work with NRCS to explore ways landowners can benefit from environmental service markets.

3) A number of serious claims have been made in an broad attempt to connect individual weather events – hurricanes, tornadoes, and so on – to anthropogenic climate change. Do you agree with such claims? Please elaborate.

Response: I am not a climate scientist. However, a 2013 research report by USDA's Agricultural Research Service, Climate Change and Agriculture in the United States, states that "the predicted higher incidence of extreme weather events will have an increasing influence on agricultural productivity." If confirmed, I will consult with USDA's scientific experts related to the impacts of climate change on extreme weather events so that I can contribute to efforts to allow landowners to manage the risks of climate change.

4) When agencies perform regulatory impact analysis, do you believe it is important to follow standardized procedures established by the Office of Management and Budget?

Response: USDA follows all established guidance when developing regulations. If confirmed, I will continue to follow all standardized procedures established by the Office of Management and Budget.

5) In assessing the benefits and costs of a regulatory policy, do you believe the USDA should evaluate domestic costs and domestic benefits separately from global/international costs and benefits? In other words, do you think standard practice should be to separate out the benefits and costs to American citizens of a particular regulatory policy, so that those costs and benefits can be independently evaluated?

Response: USDA follows all established guidance when developing regulations. Under current OMB guidance contained in Circular A-4, analysis of economically significant proposed and final regulations from the domestic perspective is required, while analysis from the international perspective is optional. Under OMB guidance contained in Circular A-94 -- Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, *it states that analyses should focus on benefits and costs accruing to the citizens of the United States in determining net present value. Where programs or projects have effects outside the United States, these effects should be reported separately. OMB's* Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis *identifies situations where estimating international impacts may be warranted. If confirmed I will work with Congress and the Administration to implement an efficient and equitable regulatory policy that seeks to increase net benefits to the public and that describes as clearly as possible the benefits and costs of USDA's actions.*

6) In Arkansas we have a lot of forests – our forests have actually been pretty well-managed, when compared to other regions. But in other parts of the country, bad forest management has significantly increased the threat of wildfire. Some predict that these management practices will lead to increased wildfires in certain regions over the coming decades. Would you agree that it's important, when discussing the frequency of events such as wildfires, to consider factors such as forest management, in addition to weather patterns?

Response: Active forest management is crucial in mitigating wildfires. Past forest management practices, including fire suppression, timber management, lack thereof and others, have significant effects on the build-up of hazardous fuels in forest lands. If confirmed, I would

welcome the opportunity to work with you and the Committee to increase active management on national forests.

7) What is your view of the forest health benefits from timber sales, thinning, and reforestation?

Response: As a forester and a forest landowner, I have worked to design timber sales, thinning operations, and reforestation on my family's land. With respect to our National Forests, as expressed in my oral and written testimony, there is a strong need to increase the pace and scale of forest restoration and management on the National Forests, including timber sales, thinning and reforestation.

8) Since 2008, timber sales from the Ouachita and Ozark NF's have declined by more than 9%. During this same time period, lumber prices have more than doubled, from below $150/MBF to over $300/MBF.

   a. Can you explain why timber outputs have fallen despite a rising market?
   b. Has the need to conduct management dropped in the intervening years?
   c. Can you provide for the Committee a chart showing the increase in timber sold through Stewardship contracts on the Ouachita and Ozark National Forests over the last 5 years?
   d. If the proportion of timber sales sold as Stewardship contracts has been increasing, can you provide the committee with the following: (1) a summary of price per unit of wood (CCF/MBF/ton) obtained at auction from these forests for the same time period, and (2) a summary of costs per acre of forests thinned on these forests for the same time period?
   e. I'm increasingly concerned about reports of sales being offered that have gone no bid, particularly in light of the increasingly robust timber markets we are seeing. Will you commit to working with me to address these problems and see to it that these forests offer sales that meet the needs of Arkansas' timber industry?

Response: The Forest Service has a goal of increasing the number of acres mechanically treated by 20 percent over the next three years. The agency was on track in FY 2012, selling over 2.6 billion board feet of timber. However, the agency's funding request for restoration and timber harvest have been reduced from the FY 2013 President's Budget level. As a result, the restoration funding level proposed for FY 2014 is conservatively estimated to yield 2.4 billion board feet of timber volume sold. That being said, if confirmed, I will work with the Forest Service to explore ways to increase efficiencies to increase the pace of restoration through such things as NEPA efficiencies, stewardship contracting and large scale projects. In addition, if confirmed, I look forward to working with you to more specifically address your concerns and questions in regard to the Ouachita and Ozark National Forests.

9) Under your guidance, how will USDA use the recently revised "social cost of carbon" assumptions to influence policy choices?

Response: USDA has analyzed a number of voluntary stewardship activities with respect to their carbon benefits and implementation costs. The revised "social cost of carbon" analysis suggests that voluntary activities by farm, ranch and forest owners could be a very inexpensive approach to addressing climate change relative to other actions.

10) As the EPA attempts to implement regulatory policies that would have a profound and costly impact on American farmers – such as the Ozone National Ambient Air Quality Standards (Ozone NAAQS) – will you initiate any interagency communications or coordination to ensure that the costs and burdens on American farmers are fully considered by the EPA? If so, please describe any permanent protocols or practices that you would put in place to ensure that such communication and coordination continues throughout your tenure.

Response: USDA works closely with and comments on EPA on regulations that affect agriculture. If confirmed, I commit to continuing to work closely with EPA to ensure that agricultural interests are conveyed on important matters concerning farmers and ranchers.

11) There is an effort to rebrand each agency within the Department. Some in USDA leadership are attempting to do away with individual agency logos and identity – such as NRCS, or Rural Development – and forcing all agencies to simply identify visually as "USDA." I'm worried that this could have unintended consequences. I've heard from local conservation districts in Arkansas who work so hard to build good relationships between farmers & landowners and NRCS. NRCS does really good work with Arkansas farmers. In order for these relationships to thrive, farmers must be able to *trust* that NRCS has their best interest at heart. I am concerned that eliminating the NRCS identity and simply having "USDA"-branded personnel "show up on the farm," could really undermine trust and existing relationships that have been built over many years. Do you share this concern, and what is your view on this issue?

Response: As you know, USDA is a complex department comprised of 17 different agencies each with difference missions, and one of my highest priorities is ensuring the safety of everyone involved in implementation of UDSA programs and activities. The purpose for developing one identity was to make it easier for the public to identify and access USDA programs.

I understand the NRCS logo used in coordination with the USDA logo provides the public, especially in rural communities, with an easily recognizable symbol for natural resource conservation. I especially value the input of key conservation partners and take your concerns very seriously.

USDA's Office of Communications will continue to work closely with NRCS to find a solution that respects the unique relationship of NRCS and private landowners, while maintaining the public's awareness of USDA.

12) Gains in conservation tillage and its importance as a tool to prevent soil degradation is closely linked with the availability of effective weed control system, including herbicides and weed resistant crops. However, USDA has failed to effectively review herbicide-tolerant traits for corn, soybeans, and cotton in a reasonable timeframe. What concerns have you expressed to USDA leadership about the continued viability of conservation tillage without the approval of safe technologies in a timely manner, and what do you intend to do to remedy this situation if confirmed?

Response: USDA supports the safe and appropriate use of science and technology, including biotechnology, to help meet agricultural challenges and consumer needs of the 21st century. We have implemented steps to improve the timeliness and predictability of regulatory decisions for new GE crops and to provide additional opportunities for public input in that process, while addressing the current backlog of GE petitions. Under our previous process for approving biotechnology petitions, it took an average of 3 years to make a final determination. Under our new process, our goal is to complete this same process in just 13 to 16 months. On Friday, July 19th, USDA announced 6 biotech regulatory actions that are moving forward with environmental assessments as opposed to a full Environmental Impact Statement. This demonstrates our commitment to implementing a timelier and predictable process for making deregulation decisions while continuing to ensure the safe introduction of genetically engineered crops.

Senate Committee on Agriculture, Nutrition & Forestry
23 July 2013
Krysta Harden
Questions for the record

Chairwoman Stabenow

Questions for Ms. Harden

1. Earlier this week, Secretary Vilsack announced the sign-up activity and acceptable offers for the Conservation Reserve Program (CRP). This program serves an important function within the conservation portfolio for incentivizing farmers to remove marginal agricultural lands from production. In addition, the CRP provides opportunities for placing water quality and wildlife benefiting practices on cropland creating conservation benefits in harmony with commodity production. The most recent figures are reflective of a much larger and complex crop production transition occurring across our landscape. In the Senate passed Farm Bill we place emphasis on ensuring that we protect the most sensitive acres while realizing budgetary savings.

   Senate Bill 954 provides for a total CRP enrollment of 30 million acres in 2014. Your announcement indicates a projected enrollment of 25.8 million acres at the beginning of fiscal year 2014. When the Farm Bill is signed into law, what actions can and will the Department undertake in early FY 2014 to maximize the use of the CRP for removing marginal agricultural lands, increasing water quality benefits, and improving wildlife and pollinator habitats by enrolling lands in contracts during 2014?

   Response: Over time, CRP acres have increasingly been targeted to sensitive and marginal lands. In addition to this year's general signup, which maintains the significant increases in erodible land we've seen over the last decade, continuous CRP enrollment authorities are available on an ongoing basis to meet these conservation goals. Continuous CRP enrollment options include programs like the State Acres for Wildlife Enhancement (SAFE) or the Conservation Reserve Enhancement Program (CREP). The lapse in CRP authority during the first part of this fiscal year has also made it more difficult to meet our Continuous CRP enrollment goal, so providing long term authority such as that proposed in S. 954 would be beneficial to maintaining our conservation goals into the future.

   In the targeting of the CRP to site and farm specific benefits, is the current model used by the Department serving the natural resources and the CRP to achieve its fullest potential?

   Response: Yes, I believe this model has been successful. Throughout its 27 years, CRP has adjusted as contracts expire, former acres re-enroll, new acres offered, and as stakeholders provide input as to what works and what can be done better. CRP continues to achieve a careful balance of multiple goals, including targeting environmentally sensitive land, maintaining benefits associated with long-term grass covers, and wildlife habitat protection - while maintaining voluntary participation.

2. I have heard stories from a growing number of farmers across the country, who are struggling with hard-to-control weeds, which are resisting commonly used crop protection and pest control products. Many of these growers are looking to the USDA to approve the latest biotechnology that will address the challenges they face in the field.

   How do you intend to ensure that the latest biotechnology addressing these issues gets into the hands of the farmers that need them in a timely manner, without unnecessary delay while ensuring that the products are safe?

   Response: I support the safe and appropriate use of science and technology, including biotechnology, to help meet agricultural challenges and consumer needs of the 21st century. USDA has implemented steps to improve the timeliness and predictability of regulatory decisions for new GE crops and to provide additional opportunities for public input in that process, while addressing the current backlog of GE petitions. Previously process for approving biotechnology petitions, took an average of 3 years to make a final determination. Under USDA's new process, the goal is to complete this same process in just 13 to 16 months. On Friday, July 19th, USDA announced 6 biotech regulatory actions that are moving forward with environmental assessments as opposed to a full Environmental Impact Statement. This demonstrates our commitment to implementing a timelier and predictable process for making deregulation decisions while continuing to ensure the safe introduction of genetically engineered crops.

Senator Klobuchar

Question for Krysta Harden

1. This week the Department of Agriculture announced that they would allow emergency haying and grazing in Minnesota to increase the availability of feed for dairy and cattle producers in response to the severe loss of this year's alfalfa crop. Understanding the importance of responding to disasters quickly, as the Deputy Secretary of Agriculture, how would you work to make timely disaster assistance for agriculture producers a priority?

   Response: One of the critical roles of this Department is to provide aid to producers during and after natural disasters. One part of this is through strengthening the crop insurance program, which is a key component of the farm safety net. Despite the historic drought and other disasters last year, we did not have calls for ad hoc disaster assistance, demonstrating the program's strengths. In addition, during last year's historic drought, this Department took action to get aid to producers as quickly as possible. Among other actions taken during the drought last year, the Department streamlined the disaster designation process so that producers can more quickly receive aid, such as emergency loans. However, the most important thing that can help provide more timely aid to producers is passage of a comprehensive, five year farm bill, which includes livestock disaster programs. If a farm bill is passed, I commit to making implementation of these disaster programs a top priority.

Senator Gillibrand

Questions for Ms. Krysta Harden

1. Antimicrobial resistance is an evolving global public health and agriculture security threat. Veterinarians and farmers need increased research and extension services to improve judicious antimicrobial use, develop procedures and practices to comply with the Food & Drug Administration's *Guidance for Industry 209* and *Draft Guidance for Industry 213*, and improve infectious disease control in production animals? In your new position, how will you ensure the Department meets this challenge to improve animal health and concurrently reduce unnecessary and injudicious antimicrobial use?

   Response: USDA knows that America's livestock producers are concerned about the health and care of their animals and remain committed to the judicious use of antibiotics. If confirmed, I will work to see that USDA remains committed to playing an active role in partnering with FDA and preserving the effectiveness of medically important antibiotics. In addition to ongoing research, we are committed to identifying opportunities to reduce usage and maintain the effectiveness of these drugs – whether through the development of new treatment options for animals, such as vaccines, or through outreach and education to this country's agricultural community so that they have better information on the judicious use of antibiotics.

2. A recent Centers for Disease Control & Prevention report on attribution of foodborne illness from 1998-2008 showed that our food safety system has failed to make inroads against *Salmonella spp.* In your position as Deputy Secretary of Agriculture, will you improve or implement new policies to control and prevent pathogens in our food system, such as additional pathogen reduction performance standards and microbiological surveillance testing?

   Response: If confirmed, I will work to support USDA's efforts to develop multi-faceted efforts to achieve reductions in Salmonella rates, such as developing new baselines for raw chicken parts and requiring establishment reassessments of HACCP plans for ground poultry products.

3. The Food Safety & Inspection Service has proposed a rule to change poultry inspection by relinquishing carcass and viscera inspection to control of the producing company. There have been significant food safety and occupational safety concerns regarding this rule. In your new position at the Department, how will you ensure changes in inspection procedures are highly scrutinized to ensure there are not negative impacts on occupational safety, the environment, food safety, and animal health?

Response: If confirmed, I will continue to work with FSIS to ensure that our food supply remains the safest in the world. While the Department does not have authority or expertise to regulate worker safety, you have my assurances that, if confirmed, we will continue to work closely with our colleagues across government to assure adequate protections for workers, the environment, food safety, and animal health.

4. Program fidelity is critical to ensure a fair and consistently high level of food safety protection for our meat, poultry, and egg product supply. How will the Office of Field Operations ensure that its inspection methods, policy implementation, and enforcement are consistent? How will it respond to recent Government Accountability Office (GAO) and Office of the Inspector General (OIG) open or unresolved recommendations that have documented repeated inconsistencies in assuring major food safety, inspection, and animal handling requirements?

   Response: I can assure you that FSIS will continue to work with GAO and the OIG to resolve recommendations regarding inconsistencies in inspection. FSIS has reached management agreement on all OIG recommendations and has made commitments in response to GAO recommendations. It is working to implement those commitments and to achieve final resolution of all the recommendations.

5. Pandemic threats are a constant and grave threat to domestic health and agriculture security. With increasing changes in land-use and urbanization, it is estimated that there is an increase in the emergence of new infectious diseases from wildlife sources, which is magnified by international trade and travel. The Animal & Plant Health Inspection Service (APHIS) Agency performs many important biosecurity functions, such as responding to the recent avian H7N9 virus in China. In your new position, will you improve APHIS's bio-surveillance activities and coordination with other public health agencies to conduct better surveillance for existing and emerging pandemic threats and foreign animal diseases from entering our nation, including at international ports, such as at the John F. Kennedy Airport in New York?

   Response: USDA APHIS, in cooperation with its Federal partners, has a strong system of controls in place to detect and respond to foreign animal diseases and other animal health emergencies to preserve and protect American agriculture and natural resources. These protection efforts start overseas with our work to obtain plant and animal health surveillance information, to developing import standards to ensure pest- and disease-free products are imported, and extend to our surveillance work throughout the country and our preparedness to respond effectively to threats to U.S. agricultural health when we detect them. I know the Agency takes this mission very seriously, and I can assure you that, if confirmed, I will make sure that APHIS continues to seek every opportunity it can to strengthen its processes and partnerships to protect and preserve American agriculture.

6. Childhood obesity remains one of this country's top health concerns, with some experts predicting that today's generation of kids will face long-term poor health and debilitating

chronic disease as a result. What are some of the actions you would take as deputy secretary to help reverse this epidemic?

Response: Improving the health and nutrition of America's youth is a top priority for this Administration, and is a key strategy in reducing the incidence of childhood obesity. Nutrition science experts have demonstrated that school-based strategies can help to create an overall environment that has a positive impact on children's health. The Department's efforts in implementing the Healthy Hunger Free Kids Act will continue to be a major focus in achieving that goal. If confirmed, I will support USDA's ongoing work to help schools as they implement the new nutrition standards for school meals as well as the new standards for foods sold on campus outside of the school meals program. Sound research to identify proven strategies to reduce obesity is also a critical component of USDA's overall strategy. Throughout USDA, if confirmed I would support the departmental research initiatives in this area.

7. The Supplemental Nutrition Assistance Program is the backbone of the nutrition safety net in this country. What are some steps you would take to ensure that the program remains strong? And specifically what would you do to pro-actively ensure that the SNAP program retains the resources it needs to serve our country's neediest families?

Response: The Administration strongly supports the Supplemental Nutrition Assistance Program (SNAP), the cornerstone of the food assistance safety net. USDA takes seriously its mission and responsibility to provide access to nutrition assistance program benefits to every eligible person who needs and seeks assistance. USDA promotes program access through appropriate outreach to program partners and potential recipients to ensure that eligible people can make an informed choice for themselves and their families.

If confirmed, I will continue to support USDA's efforts to ensure access to SNAP to those who are eligible but not participating. The latest data shows that approximately 75 percent of those eligible participated in the program in 2010, up about 20 percent from 2000.

Rooting out waste, fraud, and abuse so that Federal dollars are spent appropriately is a top priority for this Administration. We know that taxpayers deserve excellence from their government, and if confirmed I will continue the Administration's strong commitment to making sure that SNAP is targeted to those families who need it the most.

8. The National School Lunch Program is paramount to the health, welfare, and education of our nation's children. In your new position, how will you ensure that the program provides the highest quality food in terms of nutrition, food safety, and wholesomeness?

Response: Healthy school meals are a critical investment in our children's health and the future success of our nation. The Healthy, Hunger-Free Kids Act of 2010 required USDA to update the standards for school meals. The previous school meal standards were developed 15 years ago and did not meet current nutritional guidelines. The updated, science-based nutrition standards, implemented for the first time this previous school

year, provide significant flexibility for local schools to develop their own menus to ensure that children have the energy they need to learn and be physically active, while reducing their risk for obesity and other serious chronic diseases. USDA will continue to work with schools as they implement these new standards to ensure that every child, in every community across America, has access to healthy and nutritious meals.

The Healthy, Hunger-Free Kids Act of 2010 also required USDA to establish nutrition standards for all foods sold in schools -- beyond the federally-supported school meals programs. The "Smart Snacks in School" interim-final rule, published June 28, 2013 draws on recommendations from the Institute of Medicine, existing voluntary standards already implemented by thousands of schools, and healthy food and beverage offerings already available in the marketplace, and reflects input from communities across the country.

9. Cultural transformation is critical to the workforce of the Department and its agencies. In your new position, how will you help make this priority a reality, with a focus on outcomes that substantively creates an organization that is open, diverse, and accepting? Specifically, ensuring this is not only focused at the Department's headquarters but ensuring equal attention and substantive transformation at regional, district, and field positions? Please include in your answer what foundational changes you will lead, such as in hiring strategy, management accountability, organizational communication, and ensuring all employees can openly play a part in this transformation? For example, how can a Slaughter Inspector in the Food Safety & Inspection Service or an Animal Health Technician in the Animal & Plant Health Inspection Service provide input to the Department, contribute their time to promoting diversity, or address a hostile work or environment? And how do you plan to measure progress?

   Response: If confirmed as Deputy Secretary, you have my commitment to support the ongoing work of this Department to improve USDA's record on civil rights and move us into a new era as a model employer and premier service provider. In April 2009, Secretary Vilsack sent a memo to all USDA employees calling for "a new era of civil rights" for the Department that made clear USDA would have zero tolerance for any form of discrimination. He also directed the Office of the Assistant Secretary for Civil Rights (OASCR) to lead a comprehensive program to improve USDA's record on civil rights and move us into a new era as a model employer and premier service provider. USDA has consistently worked to ensure that every farmer and rancher is treated equally and fairly and, if confirmed, I will continue to uphold that mission. Through training, improved outreach efforts to our field staff, and a more diverse workforce, we will continue to make record improvements in reducing the number of civil rights complaints and we will work to resolve complaints in a timely and fair way.

Sen. Bennet

Question for Krysta Harden:

1. As you know, Southeast Colorado is currently experiencing terrible Dust Bowl conditions. Large segments of Colorado's Eastern Plains—the lifeblood of our $40 billion

agriculture sector—are essentially blowing away. It's the result of 3 consecutive seasons of drought, and most experts are indicating that producers in the arid West will continue experience dry conditions over the next few years. Of course, there's nothing we can do to stop this drought or prevent the next one from occurring. But what opportunities do you see for the USDA to help places like Colorado suffering from the effects of persistent drought?

Response: At the peak of the drought in September 2012, more than 65% of the contiguous U.S. was in moderate to exceptional drought. To date this year, over half the country is experiencing drought.

Last year, Secretary Vilsack directed all USDA agencies to employ significant administrative flexibilities within the existing framework of statutory authorities to provide assistance to producers. For example, USDA expanded lands in the Wetland Reserve Program and the Conservation Reserve Program (CRP) that would be eligible for emergency haying or grazing. Roughly 2.8 million acres in the CRP were opened up under the emergency haying and grazing option, which provided up to $200 million in forage value. In addition, funds were prioritized under the Environmental Quality Incentives Program and the Wildlife Habitat Incentives Program to help producers manage drought conditions.

USDA also simplified the process for Secretarial disaster designations, which resulted in a 40 percent reduction in processing time for most counties affected by disasters.

Despite these actions, some programs that could have helped mitigate drought impacts currently have no funding. One of these programs, the Livestock Forage Program, payments could have totaled between $500 million and $600 million for 2012 losses alone. These programs are reauthorized in the Senate Farm Bill, s. 954, and are one of many reasons that Congress needs to pass a comprehensive farm bill as soon as possible.

Ranking Member Cochran

Questions for Krysta Harden:

1. Given the challenge of crafting a new five-year farm bill under serious budget constraints, the Senate's new farm bill – the Agriculture Reform, Food and Jobs Act of 2013 (S. 954) – provides the certainty of a five-year farm bill for American farmers, ranchers, conservationists, and others in related industries while also being fiscally responsible. The Committee made a concentrated effort to identify savings and to improve the effectiveness and efficiency of streamlined programs while protecting their integrity. For instance, the conservation title proposes to replace regional conservation program authorities (Chesapeake Bay Watershed Program, Great Lakes Basin Program) with a new Regional Conservation Partnership Program (RCPP). In the same way, the newly created Agricultural Conservation Easement Program merges, maintains, and simplifies the authorities for three easement programs: the Wetlands Reserve Program, the Grassland Reserve Program, and the Farmland Protection Program. Given your

experience as a former House Agriculture Committee staff member and as Chief Executive Officer of the National Association of Conservation Districts (NACD), I am sure you are well aware that implementation of a new Farm Bill is a timely and rigorous administrative process. If not done carefully there can be many unintended consequences. If confirmed, what steps will you take to ensure that all farm bill programs and reforms are implemented in a way that follows the intent of the law and best serves producers?

Response: If confirmed, I am committed to working with this Committee to implement a new Farm Bill in a timely manner and will work with Congress to ensure we meet the goals in the legislation.

2. The Budget Control Act of 2011 has required USDA to reduce spending across the Department. In the past, USDA has claimed that –essential federal employees‖ would not be subject to furloughs. It is my understanding that –essential‖ employees were those that are –necessary to fulfill constitutional responsibilities, safeguard human life or protect property.‖ During the past six months, USDA has considered furloughing employees—including food safety inspectors—and has taken administrative actions to reprogram funds that were designated for direct payments to farmers. Looking ahead, how will the agency identify funds to uphold contractual obligations and provide greater certainty to those that do business with USDA?

   Response: The reductions in the Budget Control Act of 2011 and the final fiscal year (FY) 2013 spending bill resulted in a discretionary operating budget for 2013 that is over $570 million below the FY2012 enacted level and over $1 billion below FY 2009. These reductions to the USDA's operating budget come at a time when our staff are doing more work than ever before. Over the past decade, USDA's agencies have leveraged efficiencies to manage a workload that has increased due to a greater number and complexity of programs and higher participation levels, while staff resources to manage that increased program activity have declined by over 12 percent. If confirmed, I look forward to continuing to work with Congress to identify budget priorities and to manage the Department's spending in a way that will ensure we can continue to provide the excellent customer service to rural America that we have always provided, helping producers and communities find new market opportunities, and grow the rural economy.

3. Improving program delivery and service to customers has long been an area of focus for USDA leadership. Given the overall budget situation, this is more important than ever. If confirmed, what actions will you take to effectively and efficiently modernize delivery of the Department's many government programs, particularly the timing of purchases in the Food and Nutrition Service commodity programs and the Farm Service Agency (FSA) programs that benefit producers?

   Response: FSA continues to make progress toward the retirement of outdated legacy S36/AS400 technology, through web-enabling and streamlining business applications for timelier, more accurate, and more reliable delivery of benefits to producers. FNS' new Web-based Supply Chain Management System (WBSCM) for food ordering enabled FNS,

with AMS and FSA, to purchase nearly $2 billion of USDA foods for schools, food banks, Indian tribal organizations and elderly feeding programs using new contracting methods to ensure foods could be purchased to meet USDA's nutritional requirements and customer needs within requested delivery dates. If confirmed, I will continue to work with FNS, FSA and the entire Department to improve program delivery for stakeholders.

4. In recent years, many farmers, ranchers, and other growers have expressed concern about increased operating costs related to new government regulations. Additionally, there has been concern that there is a strained relationship between the Environmental Protection Agency (EPA) and agriculture groups regarding regulations. If confirmed, what will you do to represent U.S. agriculture's concerns with increased government regulations and what steps will you take to improve the relationship with EPA?

   Response: *During his time at USDA, Secretary Vilsack has made it a priority to work closely with EPA on behalf of agricultural producers. Secretary Vilsack and former EPA Administrator Lisa Jackson held regular USDA/EPA update meetings with various agricultural groups to discuss current USDA/EPA issues. The Secretary is continuing these meetings with the new EPA Administrator Gina McCarthy. In addition, USDA has worked and will continue to work closely with the Agricultural Counselor to the Administrator as issues arise. If confirmed, I commit to continuing to work closely with EPA to ensure that agricultural interests are conveyed on important matters concerning farmers and ranchers.*

5. More than 60 percent of Mississippi's forestland is considered privately owned by families and individuals. These family-owned forests are integral to ensuring we have clean water, wildlife habitat, and a strong forest products industry. Strong markets are crucial to keeping forestland as forests. With strong markets families have income to treat their land when fires, insects, and hurricanes strike. If confirmed, what will you do to support strong markets for forests? Can you assure me that you will work to remove barriers that unfairly treat U.S. forest products – such as discriminatory policies against wood in green building construction, in USDA's Biobased Markets Program, and against wood for energy?

   Response: *In 2011 USDA adopted a policy to preferentially use wood in buildings. This policy encourages projects to be designed and constructed with domestically harvested wood products - ideally locally sourced and from National Forest System lands - wherever practicable and to the maximum extent feasible. In the Biobased Markets Program, USDA proposed a new rule in 2012 that seeks to provide additional flexibility in considering forestry products for inclusion in the BioPreferred program. USDA will continue to work to ensure viable markets for wood products in the bioeconomy.*

6. Nearly five years have passed since the enactment of the 2008 Farm Bill, which requires the USDA Food Safety Inspection Service to create a new science-based program for the inspection of all foreign and domestic catfish. I appreciate your assurance that the Department will honor the law enacted by the legislative body. However, I wanted to clarify the timeline for the final rule. The Undersecretary for Food Safety recently

informed me the Food Safety Inspection Service is committed to issuing a final rule on the program by the end of the current fiscal year. What is the current status of the Catfish Inspection Program, which was mandated by Congress to be implemented within 18 months of enactment of the 2008 Farm Bill? Are there any other provisions of the 2008 Farm Bill that have not been enacted? If so, why?

Response: There remain a small number of USDA related provisions/programs from the 2008 Farm Bill for which regulations have not been published. Status of implementation by Title follows:

Title I – Commodity Programs

All provisions/programs have been implemented.

Title II – Conservation

All provisions/programs have been implemented.

Title III – Trade

Section 3204. Emerging markets and facility guarantee loan program. This provision makes modest changes to the facilities guarantee program (FGP). FGP is a sub-program under the export credit guarantee (GSM-102) program. Regulations for the GSM-102 program were last updated in 1994. Rulemaking for the GSM-102 program, which is heavily utilized by the export community to support U.S. agricultural exports, has been underway for several years due in part to its complexity and the extensive comments received from the public during the process. Because a large portion of the GSM-102 regulatory language will be utilized in the FGP rule, the FGP proposed rule will be published as soon as the GSM-102 regulatory language is finalized. A second proposed GSM-102 rule, incorporating comments received from the first proposal, is due to be published for another round of comments within the next couple of months.

Title IV – Nutrition

All provisions/programs have been implemented.

Title V – Credit

Section 5501. Loans to purchasers of highly fractionated lands. Authorizes direct and guaranteed loans to eligible borrowers under the Indian Land Consolidation Act. During the Tribal consultation process Native American Tribes recommended changes to the statutory authorities for the program that would allow the program to work better in Indian country. Those recommended changes are contained in the respective versions of the House and Senate 2013 Farm Bills.

Department will honor the laws enacted by the legislative body. However, I wanted to clarify the timeline for the final rule. The Undersecretary for Food Safety recently

Title VI – Rural Development

Section 6101. Energy efficiency programs. A final rule implementing this provision is currently under review and we anticipate the final rule will be published in the Federal Register in Fall 2013.

Section 6102. Reinstatement of Rural Utility Services direct lending. Funding for this program is subject to the appropriations process. To date no funding has been appropriated by Congress; consequently, regulatory action to implement the provision has not been pursued.

Title VII – Research and Related Matters

Section 7129. Hispanic-serving agricultural colleges and universities. Funding for this program is subject to the appropriations process. To date no funding has been appropriated by Congress; consequently, regulatory action to implement the provision has not been pursued.

Title VII – Forestry

Section 8105. Forest products for traditional and cultural purposes. The Forest Service has engaged in extensive Tribal consultation in the development of regulations for this program. A proposed rule is expected to be published in Fall 2013 and the program regulations finalized in calendar year 2014.

Title IX – Energy

All provisions/programs have been implemented.

Title X – Horticulture and Organic Agriculture

Section 10205. Pest and Disease Revolving Loan Fund. Funding for this program is subject to the appropriations process. To date no funding has been appropriated by Congress; consequently, regulatory action to implement the provision has not been pursued.

Title XI – Livestock

All provisions/programs, with the exception of mandatory inspection of catfish, have been implemented.

Title XII – Crop Insurance and Disaster Assistance

All provisions/programs have been implemented.

Department will honor the law enacted by the legislative body. However, I wanted to clarify the timeline for the final rule. The Undersecretary for Food Safety recently

Title XIII – Commodity Futures

Does not contain any USDA related provisions/programs.

Title XIV – Miscellaneous

Section 14210. Importation of Live Dogs. A proposed rule was published in September 2011. After review of extensive public comments the final rule is under development with an expected publication date of September 2013.

Section 14215. Definition of Central Filing System. Provision authorizes the creation of a searchable database to help ensure that purchasers are able to obtain clear title to agricultural products. We are proceeding with extreme caution in the implementation of this provision. The database would contain social security numbers, taxpayer identification numbers and other pieces of personal identifying information (PII). We do not intend to implement this provision until such time as we are able to ensure that this information can be adequately protected.

Title XV – Trade and Tax Provisions

All USDA related provisions/programs have been implemented.

7. The Department has recently issued several regulations pertaining to the school meal programs that have been met with significant concern. School food authorities and other stakeholders have raised objections to the cost of new requirements, as well as the practicality and ability of the regulations to be implemented. In fact, the Department had to issue, and subsequently extend, modifications to the school meal standards. At a recent conference, it was announced by USDA that this flexibility would be made permanent by the end of this calendar year. Given that school food authorities and those producing food for the programs need certainty to run their programs and businesses, do you have any specific indication when that flexibility will be made permanent?

   Response: USDA is committed to working with Congress and listening to schools, parents and students to improve the school nutrition environment. In response to feedback from school food service providers, USDA granted flexibility on the grain and protein requirements for the NSLP for School Years 2012-13 and 2013-2014. The department intends to make the current flexibility permanent by the end of the calendar year.

8. Over the last several years, the Department has placed a strong emphasis on the promotion of organic production and local distribution and retail. While these production and retail methods are an important part of our food system, some feel they have been emphasized at the expense of more conventional production methods. Conventional methods, which employ modern technologies and efficiencies, have allowed us to provide our citizens with safe and inexpensive food as well as to export and provide food to customers around the world. Can you describe your view of the Department's role in supporting all sectors of American agriculture?
9. Farmers and many in the agriculture industry have made investments in technology to continue to efficiently produce plentiful, affordable food and fiber for the American

Response: I believe the role of the Department of Agriculture is to support all forms of agriculture. One of the reasons that the agriculture sector is so strong is that it is very diverse. If confirmed, I will help support all our programs across the Department.

9. Farmers and many in the agriculture industry have made investments in technology to continue to efficiently produce plentiful, affordable food and fiber for the American

consumers and for export customers. However, a growing challenge in an increasing number of states is the management of weeds. Some producers are even being forced to re-evaluate tillage practices and other conservation measures. At the same time, seed technologies with herbicide tolerant traits have been pending approval at USDA since 2009. Can you explain the reasoning for the delayed approval process? What steps is USDA taking to ensure that farmers have access to these and other seed technologies in a timely manner?

Response: USDA supports the safe and appropriate use of science and technology, including biotechnology, to help meet agricultural challenges and consumer needs of the 21st century. We have implemented steps to improve the timeliness and predictability of regulatory decisions for new GE crops and to provide additional opportunities for public input in that process, while addressing the current backlog of GE petitions. Under our previous process for approving biotechnology petitions, it took an average of 3 years to make a final determination. Under our new process, our goal is to complete this same process in just 13 to 16 months. On Friday, July 19th, USDA announced 6 biotech regulatory actions that are moving forward with environmental assessments as opposed to a full Environmental Impact Statement. This demonstrates our commitment to implementing a timelier and predictable process for making deregulation decisions while continuing to ensure the safe introduction of genetically engineered crops.

Sen. Roberts

Questions for Krysta Harden:

1. We have heard consistently from America's farmers and ranchers that crop insurance is the cornerstone of the farm safety net. Farmers, their bankers and the overall agricultural economy depend on the security provided by crop insurance. What role do you see crop insurance playing in the future?

   Response: Crop insurance coverage and participation has grown steadily for many years. Today it is the primary safety net for most farmers. As we move forward, I believe that crop insurance will continue to be the primary safety net provided to farmers since it is a tool that encourages good farming practices and a successful example of a public-private partnership. In the future, RMA needs to continually improve and expand this program so even more farmers and ranchers can rely upon crop insurance as a tool to help them mitigate the risks associated with the diversity of American agriculture production.

2. Last year's implementation of new regulations regarding the National School Lunch Program caused tremendous concerns for Kansas students and families, particularly maximum calorie limits. While FNS has provided temporary relief for several of the requirements, regulations for the National School Breakfast Program and Competitive Foods (Snacks) go into effect this upcoming school year. Will USDA continue to work with Congress to provide much needed flexibility as these regulations are implemented?

Response: USDA is committed to working with Congress and listening to schools, parents and students to improve the school nutrition environment. In response to feedback from school food service providers, USDA granted flexibility on the grain and protein requirements for the NSLP for School Years 2012-13 and 2013-2014. The department intends to make the current flexibility permanent by the end of the calendar year.

3. As USDA's Foreign Agriculture Service and the office of the United State Trade Representative and work to negotiate the Trans Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (T-TIP), what is the outlook for increased market access American agriculture products including US beef and pork?

   Response: With USDA support, U.S. pork and pork product exports reached a record in FY 2012 of $6.2 billion. That success is attributable in part to double digit growth to Canada, Hong Kong, Colombia and China. Likewise, intensive USDA efforts have contributed to the reopening of export markets for U.S. beef and beef products closed as a result of the BSE-related trade bans, like in Japan. U.S. beef and beef products exports recovered to a record $5.5 billion in FY 2012. Agreement on the Transpacific Partnership and Transatlantic Trade and Investment Partnership are opportunities to increase market access for U.S. beef and pork products and if confirmed I am committed to continue to work to expand market access for agricultural products.

4. We still have unresolved issues with pork market access into Russia, China, and Taiwan. What is the status of those issues?

   Response: We have concerns with Russia, China, and Taiwan implementing obligations on science-based trade as WTO Members. USDA continues to press Russia to accept the Codex maximum residue level (MRL) for ractopamine in pork and beef. USDA is working closely with industry, and engaging with Russia, on a strategy for allowing U.S. suppliers to provide ractopamine-free products to Russia, if they choose.

   China's unscientific zero tolerance on ractopamine in pork remains in place. USDA is consulting with industry as we continue to engage with China on science-based trade in pork.

   Taiwan implemented an MRL for ractopamine in beef in September 2012 but has no implemented an MRL for pork. USDA will continue to press Taiwan on establishing a science-based MRL for pork.

5. USDA's Animal and Plant Health Inspection Service (APHIS) has a proposed reorganization which would result in Kansas losing the presence of an area veterinarian in charge (AVIC). The Kansas Department of Agriculture works closely and on a regular basis with the AVIC currently in Kansas and is concerned that a physical move of this position to Nebraska will impact Kansas in a negative way, especially as the National Bio and Agro-Defense Facility (NBAF) will be located in Manhattan, Kansas. What is the status of the reorganization proposal?

Response: At this time, USDA has not made a reorganization proposal for APHIS on this issue. Should the Department formalize any proposal, I commit to updating you.

6. USDA's National Agriculture Statistics Service (NASS) Kansas Field Office is operated in cooperation with the Kansas Department of Agriculture (KDA) and is known as Kansas Agricultural Statistics. In order to finds ways to more effectively collect statistical data KDA has proposed several opportunities for collaboration including a pilot methodology for electronic surveying. What is the status of KDA's offer and are there further opportunities to improve cost efficiencies and cooperation between NASS and KDA?

   Response: USDA values any opportunity to collaborate with state agriculture offices in a variety of areas including research. If confirmed, I look forward to working with you on opportunities for cooperation between NASS with KDA and will keep you updated on this collaboration.

Sen. Thune

Questions for Krysta Harden

1. Other than passing a Farm Bill – what would you say is USDA's greatest need or ask from Congress today?

   Response: The unpredictable nature of the appropriations process creates significant management challenges and impacts program delivery and customer service. In addition, USDA continues to face challenges to due to declining budgets. Under Secretary Vilsack's leadership USDA has made progress in managing these greatly reduced budgets, identifying $828 million in savings through our Administrative Services Project; however, we will continue to work with Congress to identify budget priorities and to manage our spending in a way that will ensure we can continue to provide the excellent customer service to rural America that we have always provided, helping producers and communities find new market opportunities and grow the rural economy.

2. What role do you see the climate change debate playing in future policies and administrative actions at USDA?

   Response: An important part of USDA's mission is to help farmers, ranchers and forest owners manage risks and ensure access to food, fiber, and a range of services for current and future generations. We know that farmers and ranchers are on the front lines of threat mitigation and adaptation, just as they have been for generations. Over the last several years, USDA has worked to reduce the risks for farmers from climate change through research, extension, cooperative conservation, technical assistance and financial

support. This has enabled farmers and natural resource managers to build strong rural economies and expand production, while protecting the environment. The Department's current approach to climate change builds on these proven strategies. USDA's climate change investments have benefits today and will build the infrastructure and capacity in rural communities needed to respond to the challenges ahead. If confirmed, I commit to working collaboratively with Congress and all stakeholders to ensure agriculture on this issue.

3. Ms. Harden, crop insurance is the primary safety net tool for farmers in my home state of SD as well as most commodity crop producers across the United States. The direct payments authorized in the 2008 and preceding Farm Bills did not have a significant impact on stabilizing and protecting commodity crop production for most producers and Commodity Title proposals in the 2013 House and Senate Farm Bills will do little to protect commodity crop production for most producers in the future, when commodity prices drop or production losses occur – however, adequate crop insurance protection will continue to be crucial.

   Crop insurance must be kept actuarially sound and keeping it affordable is critical, especially in higher risk areas like the Western Corn Belt and in light of multiple years of prevent plant claims.

   Would Risk Management Agency be willing to explore whether it currently has legal authority to allow reduced prevented planting coverage or no coverage at all? And if such authority exists would RMA consider a limited pilot program?

   Response: I agree that crop insurance is a critical part of the farm safety net, and appreciate all you have done in support of this program. On prevented planting, I will work with RMA to explore whether there is authority to reduce prevented planting coverage and, if there is authority, I commit to working with you to determine if a pilot would be a viable idea.

Sen. Johanns

Questions for Krysta Harden

1. I was pleased to see USDA finally approved horse slaughter permits to facilities located in New Mexico and Iowa. While this is a step in the right direction, the plants cannot begin operation until the USDA allows FSIS inspectors on-site. It's troubling to me that the Obama Administration's fiscal budget for 2014 eliminates funding for horse meat inspection, effectively shutting down legal horse slaughter that could take place.

   In 2011, the Government Accountability Office (GAO) released a report that looked at the impact of the U.S. horse slaughter ban. According to the report, horse welfare in the United States has declined since 2007, as evidenced by a reported increase in horse abandonments and an increase in investigations for horse abuse and neglect. Furthermore, the horse slaughter inspection ban has not stopped horses from being slaughtered. Many unwanted horses are still being processed for meat, but they are shipped greater distances to

slaughterhouses in Mexico, which is outside of the reach of USDA humane slaughter regulations. After the 2011 GAO report, Congress did not include a ban on the use of federal funds for the inspection of slaughtered horses in the FY2012 appropriations bill, which was signed into law (P.L. 112-55) on November 18, 2011.

As you are aware, both House and Senate Appropriations bills – if signed into law – would reinstate the horse slaughter ban, as proposed by this Administration. This would continue the disastrous impacts we have seen on horse welfare. Since USDA supports reinstating the ban, what recommendations do you have for the humane disposal of unwanted horses, other than horse slaughter? How will USDA implement these recommendations?

Response: USDA's statutory authority encompasses the transportation of horses and the regulation of all slaughter facilities. USDA is committed to working with our federal partners and stakeholders to find a humane solution for unwanted horses.

2. As you know, part of the competitive edge of U.S. farmers is their innovative, entrepreneurial approach to agriculture. For the most part, farmers here are more interested in revenue earned from the market rather than government protection from market forces. Our market leadership is maintained by adoption of technology that allows farmers to produce more food on less ground while conserving natural resources. This is particularly the case with biotechnology and genetically engineered crops. As we have seen over the past 20 years, this technology is vital to improving yields, but innovation likely will have to accelerate to a more rapid pace than we have seen historically in order to feed a wealthier, more populous world.

   I know you recognize the importance of this technology, but I am concerned that it seems to be taking much more time to move new traits through APHIS approval. The Plant Protection Act gives APHIS authority to determine if a genetically engineered crop is a plant pest, and if APHIS determines that such a crop is not a plant pest, it must be deregulated—there is no authority to further delay approval with an environmental impact statement or other obstacles.

   The 9th Circuit Court recently stated, –If APHIS concludes that the presumptive plant pest does not exhibit any risk of plant pest harm, APHIS must deregulate it since the agency does not have jurisdiction to regulate organisms that are not plant pests.‖ Will USDA change its deregulation process in response to the Circuit Court decision, which held that once USDA concluded a plant –was not a plant pest…the agency had no jurisdiction regulating the crop‖? Will USDA continue to require environmental impact statements (EIS) rather than environmental assessments, even though an EIS adds years to the approval process? Is there any legal or scientific justification for doing so? In your view, should the potential threat of unfounded lawsuits from environmental activists be given priority by USDA over the need of farmers for products that can help manage threats and grow more food on less land?

   Finally, I know there are instances in which foreign governments, such as Brazil and Canada, have approved traits that have not been deregulated in the United States. Is there any

scientific reason or other basis for the delay in U.S. approval, causing us to lag behind our foreign competitors?

Response: USDA supports the safe and appropriate use of science and technology, including biotechnology, to help meet agricultural challenges and consumer needs of the 21st century. We have implemented steps to improve the timeliness and predictability of regulatory decisions for new GE crops and to provide additional opportunities for public input in that process, while addressing the current backlog of GE petitions. Under our previous process for approving biotechnology petitions, it took an average of 3 years to make a final determination. Under our new process, our goal is to complete this same process in just 13 to 16 months. On Friday, July 19th, USDA announced 6 biotech regulatory actions that are moving forward with environmental assessments as opposed to a full Environmental Impact Statement. This demonstrates our commitment to implementing a timelier and predictable process for making deregulation decisions while continuing to ensure the safe introduction of genetically engineered crops.

Sen. Grassley

Question for Krysta Harden

1. I sent a letter to USDA APHIS and OMB requesting that they move towards finalizing a comprehensive BSE rule as quickly as possible in February of 2012. I have been told progress has been made on this issue in the last year but a final rule has not yet published. Is there a timeframe for when the final comprehensive BSE rule will be published?

   Response: Finalizing the BSE comprehensive rule is a priority for USDA and APHIS. It will help open markets for U.S. beef. It will give us leverage to ask trading partners to base decisions on sound science. If confirmed, I will work to finalize this rule.

Sen. McConnell

Question for Krysta Harden:

1. On December 18, 2012, the USDA's Risk Management Agency (RMA), without notice in the Federal Register, announced changes to crop insurance requirements for burley and flue-cured tobacco effective for the 2013 planting season. Specifically, the RMA changed the rotation schedule requirement for burley and flue-cured tobacco from three years to two years on the same plot of land. It is my understanding that these changes were made in an effort to reduce risk and losses attributed to disease and to address concerns of crop insurance fraud. I certainly support the RMA's efforts to improve the tobacco insurance program and to address program integrity that will lead to a sustainable and responsible continuation of the overall crop insurance program.

   However, the unfortunate timing of this announcement rendered many tobacco farmers in Kentucky ineligible for coverage in 2013. Having grown up on a tobacco farm yourself,

you may be aware that by the time this announcement was made in December, farmers had already made irreversible planting preparations and did not have the resources necessary to procure new, eligible land to plant their tobacco. Consequently, many were forced to plant tobacco without crop insurance coverage for 2013. Moving forward six months, excessive rain in my region has caused tremendous tobacco losses and many Kentucky farmers now do not have coverage, due to no fault of their own. The USDA's untimely announcement, not the policy change itself, already has and will continue to have a negative effect on these tobacco producers' bottom line this year.

If confirmed by the Senate as the Deputy Secretary of Agriculture, how will you ensure a more realistic and transparent process that involves more producer input with regards to USDA policy changes?

Response: All USDA agencies need to provide as much notice to our farmers and ranchers as possible regarding changes that will impact farmers' livelihoods. If confirmed as Deputy Secretary I will commit to working with agencies so they understand that program changes, such as the tobacco change by the Risk Management Agency that you mentioned, are thoroughly discussed with producers and adequate notice is provided to impacted producers. Growing up on a farm I understand that decisions that we make at USDA impact the lives and livelihoods of our farmers and ranchers, and I commit to working to ensure the all agencies provide as much notice and information as is realistically possible when making program changes.

2. Will you also commit to working with tobacco growers in Kentucky to pursue other tools and programs, such as the Farm Service Agency's (FSA) Emergency Loan (EM) program, that might help offset some of their losses?

Response: Yes. I will work with tobacco growers to help them understand options that may be available to assist them in dealing with losses due to natural disasters.

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