REVIEW THE IMPACT OF WETLANDS AND NONPOINT SOURCE POLLUTION REGULATIONS ON AGRICULTURAL LAND

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENT, CREDIT, AND RURAL DEVELOPMENT

OF THE

COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

MARCH 23, 1994

Serial No. 103–61

Printed for the use of the Committee on Agriculture

U.S. GOVERNMENT PRINTING OFFICE
81–628 WASHINGTON : 1994

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-045929-X

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SUBMITTED MATERIAL

REVIEW THE IMPACT OF WETLANDS AND NONPOINT SOURCE POLLUTION REGULATIONS ON AGRICULTURAL LAND

WEDNESDAY, MARCH 23, 1994

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT, CREDIT,
AND RURAL DEVELOPMENT,
COMMITTEE ON AGRICULTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:05 a.m., in room 1300, Longworth House Office Building, Hon. Tim Johnson (chairman of the subcommittee) presiding.

Present: Representatives Long, Barlow, Pomeroy, Sarpalius, Peterson, Baesler, Farr, Gunderson, Allard, Barrett, Nussle, Ewing, and Smith of Michigan.

Also present: Representative E (Kika) de la Garza, chairman of the committee.

Staff present: Vernie Hubert, chief counsel and legislative director; John E. Hogan, minority counsel; Glenda L. Temple, clerk; Anne Simmons, Alexandra Buell, and David Ebersole.

OPENING STATEMENT OF HON. TIM JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF SOUTH DAKOTA

Mr. JOHNSON. We will call the Subcommittee on Environment, Credit, and Rural Development to order.

Mr. Combest has indicated to the subcommittee that he will be arriving somewhat late but to proceed in his absence, and in order to expedite things we will do just that.

I have called this hearing to review wetlands and nonpoint source pollution legislation so that the Subcommittee on Environment, Credit, and Rural Development will have the opportunity to hear from the administration, agricultural interest groups, academic research groups, and conservation organizations. This hearing is critically important as legislation reauthorizing the Clean Water Act begins to move through Congress. The input of the Committee on Agriculture and the agricultural community in general is absolutely necessary in developing legislation which regulates wetlands and nonpoint source pollution.

The Clean Water Act is currently due for reauthorization and comprehensive CWA reauthorizing legislation based on President Clinton's Clean Water Initiative has been introduced in both the House and the Senate. Although the House Agriculture Committee did not receive a joint referral of the House bill, a number of Clean

Water Act issues are critically important to agriculture, including wetlands and nonpoint source pollution. Neither the Senate nor the House bill currently contains wetlands provisions; both address nonpoint source pollution. We anticipate a sequential referral of clean water legislation after the Public Works Committee markup probably in mid- to late-April and we look forward to our opportunity in this subcommittee and the full House Agriculture Committee to make our impact on the legislation at that time.

The goal of clean water is shared by many, but the real challenge is finding the best way to achieve the goal. With the increased focus on pollution caused by nonpoint sources, it is imperative that the needs of agriculture are included in any changes in nonpoint source management programs. The testimony to be presented to the subcommittee today will be helpful to those of us who are concerned about the impact of wetlands and nonpoint source pollution regulation on production agriculture.

There are many issues surrounding wetlands and nonpoint source pollution regulation and several different legislative proposals have been introduced, including those which have been referred to the Agriculture Committee. Also, the administration's Clean Water Initiative has served as a basis for the comprehensive Clean Water Act reauthorizing legislation introduced in both the House and the Senate, H.R. 3949 in the House. While neither the House or Senate bill currently contain wetlands provisions, both contain provisions which address nonpoint source pollution.

I look forward to hearing the testimony from the administration and the rest of the witnesses, and to continue working with Chairman de la Garza and other members of the committee as we move forward on reauthorizing the Clean Water Act.

We want to expedite things today and I am going to hold to a fairly strict 5-minute rule on both testimony from witnesses and from questions from the members of this subcommittee so that we can hear everyone and get on with the hearing and give us an opportunity to review the testimony at a later time.

The Chair recognizes the chairman of the full House Agriculture Committee, Mr. de la Garza.

OPENING STATEMENT OF HON. E (KIKA) de la GARZA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

The CHAIRMAN. Thank you very much, Mr. Chairman. I appreciate you holding this hearing today on these issues of great importance to agriculture. It is obvious to me and others that, in the past, Federal wetlands policy has been neither fair to landowners nor effective in protecting wetlands.

As chairman of the Agriculture Committee, I am well aware of the frustrations experienced by farmers, ranchers, and landowners across the country with Federal wetlands rules and proposed nonpoint source pollution remedies. We know what our producers need. As a matter of fact, I go around saying that all a farmer needs for this vast country of ours and the production that we have, besides being a good farmer, is good land, clean air, and clean water. Blaming the farmer for messing up any one of those three and thereby putting himself out of business, it is a little bit bordering on the ridiculous.

I wanted to again mention that I joined with Mr. Studds of the Merchant Marine and Fisheries Committee in introducing a bill which will be the vehicle for wetlands legislation. I don't support every provision in the legislation, but my cosponsorship is so that we might work together and move forward.

We are at a point in time, Mr. Chairman, when we must separate fact from fiction or media headlines. One good example is in my area of south Texas, the Rio Grande River which we share with Mexico. We own half of the water, the State of Texas does, and Mexico the other. The world heard through mass media that this river was polluted, that it was causing multiple diseases, that it was causing birth defects, that it was not fit to use as water for drinking purposes, and everyone went into shock and everyone was out chasing headlines. We now find out from a preliminary report of a group which is yet to be publicly given that this isn't so. None of the diseases that they mention, none of the birth defects that they mention, none of this mass media hysteria about this most polluted river turns out to be factual. None of the contaminants that EPA lists were contained in any major proportions in the river's water.

And this is what we have to deal with here. In devising a wetlands bill and a new Clean Water Act, we must separate fact from fiction. We must deal solely with the facts and not go chasing headlines but rather do what is necessary and proper for the protection of the environment, and, to the extent possible, not reduce the tools necessary to produce a most important item in our collective society, which is the food and fiber that keeps us strong as a nation and even promotes our national security as being the most productive Nation in the world.

I know that the array of witnesses that will testify at this hearing will help us along that route. We need a cooperative spirit and a more reasonable balance between landowners and environmental protection. Hopefully, this will be a good step in that direction. I thank you, Mr. Chairman.

[The prepared statement of Mr. de la Garza follows:]

Statement by Rep. E (Kika) de la Garza of Texas
Chairman, House Committee on Agriculture

Hearing on Impact of Wetlands and Nonpoint Source Pollution
on Agricultural Lands Before the House Agriculture Subcommittee
on Environment, Credit and Rural Development
March 23, 1994

Mr. Chairman, thank you for holding this hearing today on these issues of great importance to agriculture. It is obvious to me and others that, in the past, Federal wetlands policy has been neither fair to landowners nor effective in protecting wetlands. It is my hope that we are on the verge of changing that policy. In addition, we need to hear how the new Clean Water Act proposals to address nonpoint source pollution will impact agricultural producers.

As Chairman of the Committee on Agriculture, I am well aware of the frustrations experienced by farmers, ranchers and landowners across the country with current Federal wetlands rules and proposed nonpoint source pollution remedies. It is clear to me that any true people-oriented Clean Water policy must be sensitive to the productive needs of our nation's agricultural landowners.

Our nation's agricultural producers and the Committee on Agriculture must be a part of this Clean Water debate. That is why I joined the distinguished Chairman of the Committee on Merchant Marine and Fisheries, Mr. Studds, as an original cosponsor of H.R. 3465, the Wetlands Protection and Management Act. I agreed to cosponsor this legislation so that it could serve as a starting point in the deliberations on wetlands here in the House. This measure has provided the Committee on Agriculture with an opportunity to address the regulation of wetlands as they relate to agricultural land.

My cosponsorship does not mean I support every provision in the bill as written. Indeed, while it represents a substantial improvement over the current situation, I strongly believe further reforms are needed to address agricultural and landowner concerns. However, I also believe the time has come for Congress to work in a cooperative spirit to strike a more reasonable balance between landowner rights and environmental protection.

We must also seek to separate fact from fiction and the news media headlines. One example is in my area of South Texas with the Rio Grande. The world heard through mass media how polluted it was, that it caused multiple diseases and birth defects, that its water wasn't fit for drinking purposes. We now find out from a study by several agencies that none of this was true; that there is very little if any pollution in the river and that none of the sensational headlines were indeed factual.

Mr. Chairman, I look forward to working with you, the Administration and, more importantly, farmers, ranchers and agricultural landowners to achieve this goal.

Mr. JOHNSON. I thank the chairman.

I now recognize the gentleman from Nebraska, Mr. Barrett.

Mr. BARRETT. Thank you, Mr. Chairman. In the interest of time, let me simply welcome the panel to the committee this morning to talk about this very important issue. Water is of the utmost importance to all of us but I think we are all concerned as well about preserving the environment. We are all interested in doing everything we can to ensure that the water that we use is safe but, at the same time, how do we pay for it without running the farmer out of business.

Welcome. I look forward to the testimony. Thank you, Mr. Chairman.

Mr. JOHNSON. The gentleman from North Dakota, Mr. Pomeroy.

OPENING STATEMENT OF HON. EARL POMEROY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH DAKOTA

Mr. POMEROY. Thank you, Mr. Chairman. I want to commend you for holding this hearing.

This is an issue of particular importance to North Dakota where we have more that 2 million wetlands basins including more than 1.7 million acres. North Dakota comprises a significant portion of the prairie pothole region, where an aerial map of the country shows many small wetlands but they are not necessarily big enough to support wildlife. Past regulation has taken many of these lands out of agricultural production, which raises important policy questions. I am pleased that testifying today will be Professor Jay Leitch of the North Dakota State University. He is here to share the results of a study recently concluded by the Council on Agricultural Science and Technology.

Wetlands definitions and delineations must be made in the appropriate context of competing uses of natural resources. As policymakers, it is our role to protect the resources and our economies that depend upon them. It is this subcommittee's primary role to make sure that agricultural uses are considered, and that is why I commend you for holding this important hearing.

Mr. JOHNSON. The gentleman from Colorado, Mr. Allard.

OPENING STATEMENT OF HON. WAYNE ALLARD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Mr. ALLARD. Thank you, Mr. Chairman. I again would like to commend you for holding these hearings. This is an important group of pieces of legislation that we're dealing with affecting agriculture. I come from the State of Colorado. It has been my observation that the Clean Water Act has been working. And how far beyond what we now have on the books do we need to go; what kind of modifications do we need to make to make it function better and provide, I think, the flexibility that the States ought to have that they don't currently have with the Clean Water Act.

So I hope that in all this discussion that we may get some comments on whether the Clean Water Act is working or not, because I think it is. Also, what can we do to enhance our provisions there that allow for flexibility so that perhaps the States can have a little

more control over how they get to certain points, not necessarily change the points, but how they get there and give them a little more flexibility on management. Thank you, Mr. Chairman.

Mr. JOHNSON. The gentleman from Minnesota, Mr. Peterson.

OPENING STATEMENT OF HON. COLLIN C. PETERSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. PETERSON. Mr. Chairman, thank you. I appreciate you calling this hearing. I have kind of been waiting for an opportunity to have some discussions about this wetlands legislation and some other things. People in my district it seems this spring just discovered what was in the 1985 farm bill and are starting to get up in arms.

I have spent quite a bit of time out in my district trying to figure out exactly what the process is and what is going on. I have spent actually a couple days meeting with SCS and Fish and Wildlife and all the different groups that are involved in this wetlands situation so I could get a better understanding of just exactly what the process is and why we have these problems. I don't know if I understand it all, but it appears that if you have people that are willing to work with each other, they are able to work through the system because they kind of, in a way, bend the rules on each side and make things work out. But if you have an area where you have folks that aren't getting along, it just seems like the system doesn't work. Somehow or another we have to take a look at this and see if we can make some changes, like the chairman said, so we can get more of a balance and get a process that will accomplish what we all want to accomplish.

When I was in the legislature in Minnesota, I spent a lot of time on wetlands and was in the middle of a lot of controversies. So I am kind of use to this issue. I have been one of those people who has had a pretty decent record on environmental sort of things. I guess the other thing I want to say, I don't know who all is in the audience here, but these things that I see coming out of the environmental community that they are going to take their marbles and go home because they can't get what they want on the EPA or Clean Water and so forth, these memos that are being circulated really disappoint me. I think we need to take a look at these issues and I hope that is not the posture the environmental community is taking, that if they can't keep everything the way it is and if they are not sure that they can win every battle, that they don't want to bring up these issues. I don't think that is a very constructive way to proceed.

So I am hoping that this hearing will help us bring up these issues so we can have some meaningful dialog and look at some of the problems and hopefully improve the process so we can accomplish what we all want, and that is clean water and maintaining the wetlands out there that are important to the environment and to wildlife. Again, I want to commend you for taking a stab at this. I hope some of the other committees will start moving as well because I think we need to look at some of these issues. Thank you.

Mr. JOHNSON. The gentleman from Iowa, Mr. Nussle.

OPENING STATEMENT OF HON. JIM NUSSLE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Mr. NUSSLE. Thank you, Mr. Chairman. I, too, have been doing a lot of visiting back home and have heard similar comments that I have heard today. I also had a group of farmers in last night, so it is in very recent memory that they told me that shouldn't we be using some common sense in all of this. I suggested to them don't assume that common sense is necessarily going to be used in this discussion and debate throughout Congress. I think you are going to see it here but not necessarily throughout the Congress.

Using the data that is fair and accurate and using studies that are accurate, they have been hearing back in Iowa, and I am sure it is true across the country, about a number of different extreme movements on either side that are going to try and shove something down their throat and they are worried. Quite honestly, I don't blame them because they are the first ones to drink the water. And they tell me, "I don't understand why farmers for some reason are made out to be the bad guys in all of this." They are the first ones, their kids, their families, their neighbors are the first ones to drink the water. They are the first ones that suffer as a result of a loss of integrity to that natural resource that they have to use to make a living and keep their families strong for generations to come.

So obviously they want to be players in this. They want to have a voice in this. But more importantly, they want that balance that Mr. Pomeroy spoke about, that balance between those competing interests. I thought that was a very good point. So that is what we are going to try and work for, and I appreciate the hearing today, Mr. Chairman.

Mr. JOHNSON. The gentleman from Kentucky, Mr. Baesler.

Mr. BAESLER. No statement, Mr. Chairman.

Mr. JOHNSON. The gentlewoman from Indiana, Ms. Long.

Ms. LONG. Thank you, Mr. Chairman. I just simply want to commend you for holding these hearings and also emphasize the need, as has been stated by my colleagues, the need for balance. Certainly, protecting the environment is important, but unnecessary regulations and adding additional burden to the management of farms and ranches, that is something that we really need to work to try to avoid.

So I am looking forward to hearing the testimony from the Department and also from the panels today. I hope that we can move forward in a very practical and sensible way. Thank you.

Mr. JOHNSON. With that, we will proceed with the first panel. The first panel, if you will come forward please, consists of Mr. Tom Herbert, who is the Deputy Assistant Secretary for Natural Resources, USDA. He is accompanied by Mr. Russ Earnest of the U.S. Fish and Wildlife Service, Department of Interior; Michael Davis, Office of the Assistant Secretary of the Army for Civil Works, Department of the Army; and Bob Wayland of the Environmental Protection Agency. We welcome the panel here.

It is called to my attention that in the course of people coming into the committee room that I overlooked the gentleman from Texas, Mr. Sarpalius. I would ask if he has any opening remarks that he would like to make.

Mr. SARPALIUS. Mr. Chairman, I will just submit it for the record and we can go on and hear the testimony.

Mr. JOHNSON. Thank you. Your statement, along with other statements from the members, will appear at this point in the record.

[The prepared statements of Mr. Sarpalius and Mr. Combest follow:]

OPENING STATEMENT OF HON. BILL SARPALIUS

Thank you Mr. Chairman for taking this opportunity to have a hearing to review the Clean Water Act pertaining to wetlands and nonpoint source pollution. Nonpoint source pollution is an extremely important issue that needs to be dealt with in order to preserve our environment, but it must be done in a reasonable manner. There are responsible ways to preserve our wetlands without taking extreme measures that do more harm than good. Mr. Chairman, I am totally supportive of corrective measures that can be enacted in a reasonable manner. I look forward to hearing from the witnesses today.

Statement of
The Honorable Larry Combest, M.C.
Subcommittee on Environment, Credit and Rural Development
Committee on Agriculture
March 23, 1994

Mr. Chairman, I appreciate the opportunity to make a few general comments about the legislation before the Subcommittee this morning and about reauthorization of the Clean Water Act. All of us on this Committee -- and throughout the Congress for that matter -- need to understand the profound impact much of this legislation will have on American agriculture should it become law.

While researching and addressing any potential non-point source pollution caused by agriculture is important I am extremely concerned that America's farmers and ranchers now are characterized by many interest groups as reported in the press as the last class of non-point source polluters who must be stopped. The environmental community does not appear to recognize that thousands of individual agricultural producers are making rational decisions about their operations based on sound economic and environmental variables that exist in their neighborhoods and their agricultural regions. Instead, environmentalists conclude that U.S. agriculture is some kind of corporate conglomerate that can be controlled from Washington with the correct mix of bureaucratic pressure and punishments. Those of us from farm country are concerned about that.

My folks in west Texas like clean water and don't need the force of Washington to convince them to protect their water and other resources. Some parts of the country talk about runoff into lakes, rivers, and streams. In west Texas we have very few lakes, rivers,

and streams so the limited rainfall that we do get collects in playa lakes. Since these playa lakes are a source for recharging our aquifer we want the water that collects in them to be clean.

I am encouraged by recent studies conducted by researchers from Texas Tech, Texas A&M, and the High Plains Underground Water Conservation District. In one study samples were taken of ground water from wells located close to playa lakes which are used for collection of runoff from cattle feedlots of approximately 40,000 head which had been in existence for over 20 years. The water in these wells was found to be suitable for irrigation, livestock watering, and human consumption. Another study conducted in several counties on the High Plains located in the Brazos River Basin watershed sampled runoff water in playas after a heavy rainfall period to determine what traces of agricultural pesticides existed. This study concluded that the very minute traces of chemicals detected pose no significant risk to humans, livestock, or the environment. Despite this legitimate reseach, we have proposals before Congress known as the polluter pays concept which would assess a fee on pesticide and fertilizer production to help encourage reduction in what they call the growing problem of poisoned agricultural runoff.

I believe many in the Congress understand the need for flexibility, more research and extended implementation time periods; this Subcommittee has attempted to deal with some of these issues in H.R. 1440. Unfunded mandates, citizen suits, volunteer monitoring, regulation of inputs, lender liability are all reasons for concern. And, there are many more.

I might just take another minute to discuss the wetlands issue. The bill our chairman has cosponsored goes in the right direction by recognizing and exempting prior converted croplands. It goes too far in giving any person the right to appeal a wetlands decision, and it does not go far enough in protecting rangelands from Sec. 404 regulations. And, unfortunately, the wetlands definition in H.R. 3465 just is not workable, so we still have a lot of work to do on that issue.

Mr. Chairman, I have no idea today whether or not the Congress will complete action on Clean Water Act amendments this year. I would remind my colleagues, though, that as we labored over the 1990 farm bill four years ago, the House Merchant Marine committee was amending the Coastal Zone Management Act, a regulatory scheme with a huge impact on agriculture in the coastal states. Much of what we will be debating in the Clean Water reauthorization was set in motion then, and agriculture for the most part was caught off guard. Just remember: in my view, no amount of commodity program payments can offset the impact on American agriculture of irrational regulators. Thank you.

Mr. JOHNSON. Mr. Hebert, again we welcome you to the subcommittee. We are very interested in your observations, your insights on where we should be going on these very sensitive, difficult issues. Your entire testimony is received for the record and will be shared by the entire committee. If you would feel most comfortable summarizing your testimony, take this as you will. We will try to hold questions from the panel to about 5 minutes each in order to expedite that.

Mr. Hebert, proceed.

STATEMENT OF THOMAS R. HEBERT, DEPUTY ASSISTANT SECRETARY, NATURAL RESOURCES AND ENVIRONMENT, U.S. DEPARTMENT OF AGRICULTURE; ACCOMPANIED BY RUSS EARNEST, U.S. FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR; MICHAEL DAVIS, OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY, CIVIL WORKS, U.S. DEPARTMENT OF THE ARMY; AND ROBERT H. WAYLAND III, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. HEBERT. Mr. Chairman and members of the subcommittee, thank you very much for the opportunity to come before you today and discuss these issues relating to wetlands and water quality protection in agriculture. I am pleased to offer testimony on behalf of Assistant Secretary James Lyons, who could not be here today, and on behalf of the administration's interagency working groups that prepared both the wetlands memorandum of agreement that we'll discuss today as well as the administration's position on the Clean Water Act.

At USDA, our goal has always been to work for a productive agriculture in harmony with a quality environment, and this is the goal we pursued as we participated in these interagency processes. We believe we can achieve this goal if everyone works together to craft realistic and flexible policies that give clear and consistent direction to the citizens at the local level where the details are best decided.

Mr. Chairman, I know how easy it is for all of us to get lost in the details of all the proposals that are before us and how easy it is for the various interests to focus on the remaining disagreements that we have before us. In many ways, that is the very purpose of this hearing, to look at those remaining disagreements, and give them discussion and air them out and see what we can come up with. But before we do that, I think we should stop for a moment and recognize the tremendous amount of movement and agreement that has occurred on the wetlands and water quality policy area over the last several years; it is substantial.

I worked for the Senate Agriculture Committee for 5 years before taking this job, and in the Federal Government on agricultural policy before that. I am very keenly aware of the divisiveness and the controversy surrounding these issues, intimately aware of the problems. But just imagine what the reaction would be of someone who hadn't participated in any of these debates since before the 1990 farm bill. Let's say this person is in the hearing room today and hadn't been here for the last 4 years. I believe that person would be utterly amazed at what has actually transpired on these policy areas. How do you think that person would react if you told him

that the Soil Conservation Service is now going to be delineating on all agricultural lands all wetlands for the purposes of all Federal agricultural wetlands programs, and that this policy was created through an administrative process that brought together all of the Federal agencies conducting wetlands policy in this country.

I know the details of this policy change are critical and they are going to have to be discussed and worked over, and that is part of the reason why this hearing has been called. But we can't let ourselves forget just how critical that initial movement is. It is substantial and we have accomplished something major.

The same thing applies to water quality protection. We are talking today about proposals essentially that use the watershed approach, with State and local people defining their problems and defining their solutions, working with farmers and ranchers, using technical and financial assistance and incentive-based programs, working on site-specific problems with site-specific solutions. And we are using these programs to achieve the greatest degree of water quality protection possible. This is an administration position and endorsed in large part by many of the interest groups on both sides of this issue. This is also a major accomplishment and we should remember that.

I have no delusions, Mr. Chairman, that the intensity and controversy surrounding the debate over all the remaining issues in these areas will somehow be reduced or eliminated if we stop to recognize just how far we have come. The fact remains that there are important and major things that need to be done for us to be able to achieve our wetlands and water quality protection goals in this country. But I think it is important that we do stop for a moment and take stock because it should give us some hope that we can find our way through some of these problems.

With regard to some specifics in the wetlands area, the administration released a comprehensive wetlands position in August of last year. This position was developed through the interagency working group process I referred to earlier and was the result of the advice from a wide spectrum of stakeholders in this issue area.

There are a number of Federal wetlands policy changes that have occurred or are in the process of occurring as a result of this administration position, and many of these changes represent substantial improvement from the perspective of the agricultural community. These changes include the exemption of prior converted cropland areas from section 404 jurisdiction, the development of a section 404 appeals process, and the development of a reasonable timeframe within which the Corps will respond to permitting decisions. There is a new emphasis on watershed level planning and the important benefits that can provide the local communities as they try to find their way through these problems, a new emphasis on wetlands mitigation banking, and a renewed and ongoing commitment to working with the voluntary restoration and protection programs, like the wetland reserve and the emergency wetland reserve program. All of these have come out of this administration process and we believe offer a great deal of improvement to the agricultural community.

And of course, we have before us also the wetlands memorandum of agreement whereby the Soil Conservation Service will now have

sole responsibility for delineating wetlands on agricultural lands for all agricultural programs. I will be happy to answer any questions that you have about the memorandum or any of these other administration positions at the end of our testimony, as will the other representatives from the administration.

With regard to the water quality protection policies and the pieces of legislation that you are considering today, there is in fact a bewildering array of proposals, timeframes, expectations, and standards on the table for us to discuss. I do not see much utility in trying to work our way through each of these proposals, as complicated as they are. What I would prefer to do is to address some of the principles that we see emerging from these proposals, principles that are also evident in the administration's proposal.

In particular, I believe for any program designed to address agricultural water quality protection needs, in order for that program to be successful, at a minimum it must include the following: First, a successful program would provide clear and direct guidance to the States and to the people implementing and affected by the program. Second, the program should give the States the option to work on a watershed basis, addressing the watersheds they believe to be the most important, and targeting their efforts in these watersheds to only those situations on the land causing real water quality problems. Third, the State should be working with all the stakeholders at the State and local level as they delineate their problems, define their solutions, and measure success. Fourth, the solutions adopted at the field level should be site-specific and they should reflect the best science we have available to us today. And fifth, adequate time must be provided for the program to work, and the program should be flexible to accommodate the needs at the State and local level.

I believe all of these elements are present in the administration's position and many of them can be discerned in many of the legislative proposals before you today. The details, of course, are critical and none of us should have any delusions about the ease with which these details can be worked out. But a framework does exist, in our opinion, that can pull all the necessary elements together.

In closing, Mr. Chairman, I would like to reiterate that there is a great deal of work to be done to address this country's objective for water quality and wetlands protection. But considerable progress has been made; we could go into a lot of details about what has actually occurred and the data that is there. We can recognize that progress is there and then, perhaps most importantly, that there is considerable agreement on the policies and approaches that we should take to address these remaining problems. The administration looks forward to working with you and the other members of your subcommittee and Congress in the months and years to come to make the success possible. Thank you very much.

[The prepared statement of Mr. Hebert appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Hebert. As you know, my predecessor, Mr. English, introduced H.R. 1440 last year. It was marked up by this subcommittee although the full Agriculture Committee has not taken the matter up. Relative to that legislation, I wonder

if you would share with us your views on whether you believe the USDA and the SCS have the capability to be the lead agency in nonpoint source pollution management plans on agricultural land in the way that H.R. 1440, the Site-Specific Agriculture Resource Management bill, spells out.

Mr. HEBERT. We are strong supporters in the Department of the approach advocated in the bill you referenced. We believe that it is important that when we work with farmers and ranchers on their farms and ranches to deal with their natural resource problems that you deal comprehensively with the problems that they face.

With regard to your question about can this same approach work in terms of addressing water quality and should SCS be the lead, I don't believe that there is any single agency in the country at the Federal or local level that can be the sole lead. We have always worked in partnership at the State and local level and national level, the Extension Service, conservation districts, with the two agencies in the Department that do most of this work with regard to on-the-ground implementation, SCS and ASCS, and State and local partners of all types at the State agencies. We believe that the approach in H.R. 1440 should definitely be a component of what we are doing to deal with nonpoint source pollution problems and that SCS has a strong role to play. I don't believe that you could say that we could be the sole lead agency in that regard.

Mr. JOHNSON. I wonder if you could elaborate a bit on the January 1994, memorandum of agreement relative to the definition of agricultural lands. Particularly in western parts of our country, there is concern about the rational for not including rangelands within that definition. I wonder if you could discuss with us the rational and share that with us.

Mr. HEBERT. I will take a quick shot at it and then we can see if any of the other agencies need to respond. In general, when the MOA was put together the goal was to achieve a couple of particular items. First, we wanted to be able to give the landowner, in this case the agricultural community, a consistent message about what is on their properties in regard to wetlands and how it would be affected by Federal wetlands policies. And second, we wanted to reduce duplication and the overlap among the Federal agencies as these programs progressed.

As we looked at how those goals could be achieved, we had to recognize that there were historical areas of expertise that had been developed by the various agencies in this area. With regard to agricultural lands, the Soil Conservation Service has been implementing the swampbuster provision since 1985 and we have considerable experience on croplands essentially in delineating wetlands. The 1987 Food Security Act manual is designed to address specifically how to go about delineating wetlands on croplands given that the natural vegetation has been removed. We do not have comparable experience in delineating wetlands on lands where the natural vegetation has not been removed, such as rangeland and tree operations. That is outside of our historic area of significance.

Our goal in doing the MOA and what we want to achieve is to make sure that we do this job properly. We did not want to proceed

so quickly into these other areas where we did not have as much experience or expertise because we felt that we would be at risk of making mistakes and throw the whole MOA process into question. So it was in order to guarantee success and recognize our historical areas of expertise and to develop a set of policies consistent with that.

Mr. JOHNSON. You will, however, be doing delineations on pastureland.

Mr. HEBERT. That is correct. But in most of the cases that you are referring to, that will be land where the natural vegetation has been removed and replaced with an intensively managed grass crop like alfalfa.

Mr. JOHNSON. Because we are coming down to the end of my time, let me just ask one brief question. There has been some discussion about the possibility of mitigation banking, the practice where wetlands are created in one area so that development of wetlands can occur in another. Has the administration or USDA or any of your agencies pursued any studies or analysis of the possibility of such an option in legislation?

Mr. HEBERT. Mr. Chairman, I am not an expert in this area so let's see if one of the other representatives can respond.

Mr. JOHNSON. Certainly.

Mr. WAYLAND. Mr. Chairman, mitigation banking is endorsed in the Clinton wetlands plan released last August. There are more than 100 mitigation banks in operation around the country. At the time we issued the August plan, we issued guidance to our field to provide some initial clarification of how mitigation might play an important role in the program. Beyond that, there is a major study underway by the Army Corps of Engineers looking at the existing banks, the technical policy and related issues they pose in order to develop additional "how to" guidance for mitigation banking. And if you would like more on that, I think Michael Davis could elaborate.

Mr. JOHNSON. If the members will bear with me, yes. Mr. Davis do you want to briefly respond?

Mr. DAVIS. Yes, Mr. Chairman, I'll just add a little bit to what Bob said. We currently have underway an interagency effort, including USDA, to develop a detailed policy guidance and detailed technical guidance that will further advocate mitigation banking with proper environmental safeguards. We hope to have that finished sometime in the June to July timeframe and it will be out to our field offices to implement. Right now we simply have a policy framework that does endorse mitigation banking but we need to put some flesh on that skeleton and we're working on that now.

Mr. JOHNSON. That would be June or July of this year?

Mr. DAVIS. Yes, sir.

Mr. JOHNSON. All right. Very good.

The Chair recognizes the gentleman from Nebraska, Mr. Barrett.

Mr. BARRETT. Thank you, Mr. Chairman. I guess a follow-up, perhaps, on what you were getting at a moment ago. It seems that more and more of these plans are giving more oversight of wetlands to the EPA. Is this a move to put all conservation programs under the jurisdiction of the EPA? Is this a subtle continuation, Mr. Hebert?

Mr. HEBERT. No, sir, it is not. The administration's position has not changed the responsibilities of the various agencies with regard to implementation of the requirements underneath the programs. For instance, Soil Conservation Service still retains full jurisdiction for the operation of the swampbuster program. The Corps and EPA retain full jurisdiction for the operation of the permitting process under section 404.

What has occurred is that we have now agreed to use the same delineations process on agricultural lands and the same delineations process on nonagricultural lands and to work consistently and to reduce duplication. But there is no blending or shifting of responsibilities with regard to the basic implementations of the programs.

Mr. BARRETT. We are looking at five or six different plans, as you know, different suggestions. I think Mr. Bunning's bill says that determinations concerning agricultural lands, agricultural wetlands will go to the SCS. How would this fit into the USDA reorganization plan? Would this fit? Would it fly into the face of the reorganization plan?

Mr. HEBERT. No, it fits very well. Under the Secretary's proposal, the Soil Conservation Service is renamed the Natural Resources Conservation Service and would be given broader conservation program responsibilities within the Department of Agriculture. But the Natural Resources Conservation Service will be perfectly suited to carry out the provisions of the MOA and do these wetland delineations.

Mr. BARRETT. Thank you, Mr. Chairman.

Mr. JOHNSON. The gentleman from North Dakota, Mr. Pomeroy.

Mr. POMEROY. Mr. Hebert, I read your testimony carefully and noted, approvingly, a couple of statements of goals, "Wetlands regulatory programs must be efficient, fair, flexible, and predictable to avoid duplication among regulatory agencies while providing effective resource protection." And, I assume, the programs should convey a sense of fairness to those subject to the regulations as well. I further note in your testimony that policy decisions were made to address concerns of landowners for "fair, efficient, and timely decisionmaking."

I want you to know an anecdote from North Dakota that, unfortunately, is not all that atypical from what I hear as a Representative of my State. I hope that it conveys to you the notion that somehow, in implementation, this just isn't quite working out according to those goals. John Nagel farms in Richland County. Richland County is in the southeastern part of North Dakota. It is one of the most fertile counties in North Dakota. In 1990, he received permission from SCS to build a path from a field to a highway drainage ditch. He didn't have enough moisture that year to make construction of that path necessary but we sure did this summer. So, he built it in June of 1993.

Now on June 23, 1993, the USDA determined that 76,000 acres in Richland County had 100 percent crop loss because of the flooding we were receiving and that continued throughout the summer. In July or August of 1993, SCS became aware of this path that he had constructed under these incredibly wet conditions. SCS and

rendered him, on August 15, a notice that his field had been reclassified into a converted wetland.

Now this is the wettest summer in 500 years to come to eastern North Dakota. Eastern North Dakota used to be at the bottom of a lake, Lake Agassiz, so all of the soil meets the hydrological conditions requisite for the determination of wetlands. To do delineations at this time is neither fair, efficient, timely, or responsible. And it has left one whale of a public relations problem for this program in my State, let alone the very more immediate administrative problems for those trying to deal with it. How would you respond to that concern?

Mr. HEBERT. First of all, Mr. Pomeroy, we would need to consult with the people at the local level just to make sure that we had a complete sense of what had actually transpired in this process. I will just say that in general, as the Soil Conservation Service makes its wetland delineations, we do not take any 1 year's worth of data and use that as the basis for making the determination. The mapping conventions that we have worked out with the other Federal agencies, and that will become part of the wetlands MOA, require us to look at 3 to 5 years, sometimes even more, of weather data, photographs of the locations so that you can keep track of what is going on as far as the wetlands hydrology. Any one year as an outlier would not determine whether or not a wetland would be considered to be in place. That is the general policy. That is what has been developed and that is what is supposed to be occurring on the ground.

With regard to the specific case, I can't say any more until we get more facts.

Mr. POMEROY. Of course not. But I do want you to know that redelineations this last summer were simply disastrous. They do not appear to be a fair and evenhanded analysis of the condition.

Mr. HEBERT. The timing was not auspicious.

Mr. POMEROY. Yes. Following your testimony this morning, Dr. Jay Leitch, the chair of the task force on wetland policy issues for the Council of Agricultural Science and Technology, will be talking about wetlands evaluation as something that is somewhat elusive as a clear scientific determination and really is more a societal determination, one that brings to it a number of competing values. For example, the consideration of the recharging of ground water capability of wetlands being a virtue. But if within an area there is no demand for recharged ground water, why should that be the highest virtue above all competing virtues?

Do you acknowledge that in wetlands determinations there may be room for competing considerations?

Mr. HEBERT. I would say that, first of all, we have to make sure that we're following the best science available to make the delineation of the determination of whether or not a wetland is present. But beyond that delineation, it truly is up to society to decide how they want to address that wetland. Policies changed in 1985 with regard to wetlands in agriculture. That was a change made by Congress and supported by many in society. That is the prerogative of this country to go ahead and decide how they will deal with situations such as that.

Mr. POMEROY. Final question, Mr. Chairman. As an administration official responsible for implementing that policy, is it your view that present statute or regulations give you no ability to weigh competing uses?

Mr. HEBERT. No, I would not say that is the case. There are implicit and explicit within the programs that we administer at USDA a look at competing uses. For instance, the swampbuster program does include a mitigation provision by which a farmer making the determination that they need to have a particular part of their field converted, in carrying out that conversion would also go through a mitigation process. There are examples of that in current wetlands policy, perhaps a little more limited in USDA's program as compared to the Corps program.

I would like to add one thing. The administration's position talks about making movement toward managing wetlands on a watershed basis. That is a unit of Government or geographical jurisdiction that we can begin to think about the types of issues that you are raising. But that is still in development and we need to talk about it a lot more. I think it holds a great deal of promise for addressing the kinds of problems that you are raising.

Mr. POMEROY. I commend you for your responses this morning and look forward to working with you.

Mr. Chairman, I have a conflict. I will be back as soon as that is resolved.

Mr. JOHNSON. Mr. Peterson.

Mr. PETERSON. Thank you, Mr. Chairman. I represent the area right across the river from Mr. Pomeroy. We have similar kinds of concerns and I could cite similar anecdotes.

But we have another problem. I was reading your testimony about how you want to cooperate with the local folks and you want to make this process work. I just want you to be aware of what is happening. The Corps of Engineers, in their wisdom, put a moratorium on permits in my district and they didn't do anything across the river in North Dakota which has just as much water coming in as comes in from my side. We have been kind of going back and forth. They claim they needed 2 years to figure out a plan so they could decide whether to give permits or not.

They are still monkeying around and going through some scoping deal and, in the meantime, they have everything tied up. Now we have a real active watershed area; the whole area is set up in watershed districts. These are the folks I think you are talking about that you want to work with. What has happened is they have put all their projects on hold because of this situation. I took the position to put pressure on that if they are going to do this they ought to put everything on hold. Now they come back and they want to say, well, we want to exempt the Fish and Wildlife from the DNR; we don't want them to be held up, we only want the watershed districts to be held up.

I commend what you are saying but I just want you to understand that there are some places where this is not what is happening. Things are worse rather than better out there. There is going to be less cooperation, not more, if we don't figure out some way to resolve this. I have found no one that wants to really help us resolve this. The person that is in charge of the Corps in my area

is for this. As I understand it, the people across the river in North Dakota don't believe this is necessary. The Red River flows north and the ice melts later in the north than it does in the south so we always have this problem and this has been exacerbated.

I don't know if you are aware of all of this, but you ought to be. This is one of the things that is frustrating people. We hear this rhetoric and it all sounds good, but when it gets out there it does not work the way people talk about it. People are very frustrated.

Mr. HEBERT. I'll defer to the Corps to answer the specifics of the issue that you raise. But I would just say that the wetlands MOA and the process that we went through, we recognize there are problems, there are discrepancies and inconsistencies, and the process established in the MOA is designed to begin to change that. We think we can make substantial progress in that way and would share with you that goal of making sure that there is consistency and fairness and that people in the same situation in different parts of the country would feel like they are being treated exactly the same.

But I will let Mike Davis from the Corps answer specifics.

Mr. DAVIS. I'll take a shot at it. I think one of the problems is that the projects that you are talking about are older projects and we haven't had quite the opportunity to let some of the administration's policies take place and be implemented yet, which we are working on now. I think you will see some improvements in the future.

One of the concerns we have with the specific case you mention is that we were faced with numerous permit applications and a decision was made by the district, which we supported, that an environmental impact statement was necessary.

Mr. PETERSON. But why? Why didn't you think it was necessary on the other side of the river? They have the same situation as we do. I don't understand that.

Mr. DAVIS. It is my understanding that the number of projects across the river were not nearly——

Mr. PETERSON. Well they don't have watershed districts, which is what we're saying as a national policy is that we want to cooperate with these local people. Just because we're doing a better job, you are going to penalize us? That is basically what you are saying.

Mr. DAVIS. That is not our objective. One of the cornerstones of the administration's wetlands policy was comprehensive planning. I think that is one of the things we're trying to do here is put all these things into proper context.

Mr. PETERSON. I can show you the plan. The plan has been done for 10 years. Your people refuse to look at it. I don't understand. They claim they are going to be sued by somebody. I guess by the environmental community, because I don't know if there is some underlying project they want to stop or what it is. I have not been able to get to the bottom of this. But I am telling you that as one person who has cooperated and tried to work with this in the past and has been supportive, if this kind of stuff is going to go on, I am not going to be supportive.

One of the reasons I signed on to the private property bill of rights bills was because of this situation. There was a case that was won last week on takings. People better watch out, the next

thing you know you are going to have to pay to keep these wetlands set aside. Maybe that's what we need to do. I just don't understand what you folks are doing. It makes zero sense to me and it makes zero sense to my constituents. I would hope that somebody up above could do something to settle this.

Mr. DAVIS. We appreciate your concerns and we have looked into it. We are trying to expedite this EIS preparation. We are giving priority funding to the St. Paul district so he can move this out.

Mr. PETERSON. They haven't even figured out how to start the process yet. Is that still where they are at?

Mr. DAVIS. I think they are starting the process. But we would be glad to meet with you or your staff to go into——

Mr. PETERSON. I have been to three or four meetings and we seem to go backwards instead of forward. But I guess I will go to one more. Thank you, Mr. Chairman.

Mr. JOHNSON. The gentleman from Wisconsin, Mr. Gunderson.

Mr. GUNDERSON. Thank you very much, Mr. Chairman. I apologize for being late. But like my colleagues, we are running to a lot of hearings this morning.

Let me reflect on a few of the experiences we have back home as it relates to the legislation in front of us. My home State of Wisconsin has been actively implementing a priority watershed nonpoint source control program for probably the last 16 years, over $60 million in State funds have already been expended during that time. And yet, despite that kind of a commitment, Wisconsin has not been able to deal with literally more than one-fourth to one-third of the needs as they have determined them.

Given Wisconsin's experience, do you believe the implementation schedules in H.R. 3948 are even close to realistic?

Mr. HEBERT. The history of the section 319 program in the Clean Water Act has been one of flexibility in terms of working with the States, given the constraints that they have faced, both for funding and timing. My understanding from the administration position is that that type of flexibility would be necessary in order to make the program work, based on the funds that are available to do all the work that is prescribed and the amount of time necessary. The timeframes established in many of the bills may not be adequate. We need to talk about how much time. In the administration's position on the watershed approach, we have a 10- and 15-year timeframe that we think is quite adequate in most situations.

Mr. GUNDERSON. Timing is one issue. Obviously finances is the second. The administration's initiative document identifies the capital cost for nonpoint source controls to be about $8.8 billion, if my numbers are correct; technical assistance program administration costs would raise that even higher. Given the financial condition of most farmers, at least in the Midwest if not in the country today, and recognizing the limits on budgetary resources here at the Federal level, do you think it is realistic that we can meet the compliance schedules? If so, where are we going to get the money to do so?

Mr. HEBERT. The $8.8 billion figure that is referred to has been generated through a process within the EPA. I can let them address that. All I can say is that the flexibility to address the reality of the situation that we find within the States and the local level

is going to be necessary. But the specific figure, I would like to let them address that for you.

Mr. GUNDERSON. Sure.

Mr. WAYLAND. Mr. Gunderson, that is an estimate of the aggregated 20 year costs of implementing a revised nonpoint source control program. The annualized costs for agriculture are in the $400 to $600 million range, which is a significant sum. Our current grant program under the Clean Water Act for nonpoint source control is increasing from $80 to $100 million in the coming fiscal year. In addition, of course, there are USDA administered cost-share programs which supplement the resources made available by EPA.

One thing to note, however, is that in some instances the availability of assistance may not be the principal impediment to implementing improved practices. Wisconsin, in fact, has cost-share programs which have been undersubscribed and in which there have been sign-up rates lower than the availability of financial assistance. So, it is a combination of the need for flexibility, increased awareness of the nature of the problem and the practical nature of some solutions, technical assistance by Federal and State agencies and the private sector, and financial resources. We appreciate that all of those need to be brought to bear.

The timeframes in the House bill are, in fact, somewhat longer than those in the Clinton Clean Water Initiative; however, the affected operations are much broader. Whereas the administration proposal would be targeted to watersheds of impaired waters, the House bill would require the implementation of improved management practices in both impaired and unimpaired watersheds.

Mr. GUNDERSON. One of the problems we face in this area is that historically these kind of conservation programs have been voluntary and yet both the House and Senate bills have language which require States to have "enforceable policies within 2 to 3 years." This is the paranoia I think that is out there. If we have inadequate time, and then we have inadequate dollar resources, and yet we are going to mandate enforceable policies. Aren't these irreconcilable goals here that can't be met?

Mr. HEBERT. Mr. Gunderson, the one thing that I will say about those mechanisms is in conversations I have had within the agricultural community, particularly in those States and localities where they do have water quality problems and the local people want to address the problems, there is real concern with a voluntary approach, which most everyone will advocate and support, about how to deal with their real problems. How do you deal with the occasional farmer who refuses to participate, refuses to cooperate? How do you let everyone know that we are serious about this, that the locality is serious about this, the State is, and that the local population wants to see something happen without some form of backup mechanism to deal with that situation. That is what the administration has supported in their proposal and there seems to be in our minds utility for that as a backup position.

Mr. GUNDERSON. My time has expired. But I would suggest that with the limited resources, the limited amount of time, and, as the gentleman from Minnesota said, some of the real concerns about property rights developing in this country and in this Congress, I

think you people would be wise to start the process on a voluntary basis because those that are voluntary, once signed up, may become your allies 5 or 10 years down the road to deal with the involuntary. But if you start with everybody at the beginning, you are going to end up with nothing. Thank you, Mr. Chairman.

Mr. JOHNSON. Ms. Long.

Ms. LONG. Thank you, Mr. Chairman. I have heard differing estimates on this. What percent of nonpoint source pollution can be attributed to agricultural lands? What is your estimate?

Mr. WAYLAND. The most reliable information that is available comes from data which is collected by State water quality agencies and it represents a snapshot of water quality problems and their causes. In information that was collected by the States in 1990–91, of impaired waters, which are differentiated between rivers, lakes, and estuaries, impairments for rivers, for example, are about 13 percent of the waters assessed; for lakes, it is approximately 9 percent of waters assessed; and the same number, 9 percent, is the one that is the national picture for estuarian waters.

[EDITOR'S NOTE.—Revised figures follow:]

In information that was collected by the States in 1990–91, of impaired waters, which are differentiated between rivers, lakes, and estuaries, impairments for rivers, for example, are about 38 percent of the waters assessed; for lakes, it is approximately 44 percent of waters assessed; and the same number, 32 percent, is the one that is the national picture for estuarian waters.

Mr. WAYLAND. The sources of impairment may be multiple sources. In other words, a particular reach of water or lake may be affected by municipal, mining, agricultural, and other categories. So that the numbers total to greater than 100. Having given you that long preamble, the estimate by the States of the range of impaired rivers, which are impaired in part due to agricultural discharges, is 72 percent; for lakes it is 56 percent; and for estuaries it is 43 percent.

Ms. LONG. Are agricultural producers exempt from citizen suits under section 503 of Chairman Mineta's bill?

Mr. WAYLAND. I believe that is the case. The House bill is not perfectly aligned, although we believe that it is largely consistent with the administration's clean water proposals. The administration has not recommended that the citizen suit provisions of the Clean Water Act, which are applicable to industry and municipalities, be applied to individual landowners or nonpoint sources.

Ms. LONG. Thank you.

Mr. JOHNSON. I would like to follow up just very briefly on the rangeland concern that Mr. Barrett and I inquired about earlier. It is my understanding that the SCS has, in fact, in the past, at least prior to 1985, been actively involved and responsible for rangelands and has also worked with Indian reservations. I have nine of them in my home State, much of which is rangeland. Would it be fair to say that the problem that the SCS has is more one of overextension than it is that they simply lack the expertise to be a lead agency on rangelands?

Mr. HEBERT. It is a combination of both, Congressman. We do have considerable experience in working on rangeland. We take a lot of pride in the Soil Conservation Service in the work that we do with the ranching community in managing their rangelands.

But, that is a very different set of activities from going out and delineating wetlands on their land. So it is a problem of underlying experience and expertise; it is also a problem of being overextended, of course, because we have good people out there who can be trained, maybe not as fully as necessary in all cases. But can we go out and train all of them to do all of this work? That is an open question. Where would the resources come from for us to do that, given the broad range of responsibilities that we have today already?

Mr. JOHNSON. There has been some discussion recently about taking a tiered or a prioritized approach to the regulation of wetlands, where wetlands which are determined to have a higher value would have a greater degree of protection. Has the administration been looking at some tiered approach, and are you aware of this approach being utilized by the States? I wonder if you would share with us any thoughts that you have on that particular approach.

Mr. HEBERT. I will defer to the EPA and the Corps of Engineers to answer your question.

Mr. WAYLAND. Mr. Chairman, the administration's August plan acknowledges the importance of not, for regulatory purposes, treating all wetlands and all activities that occur in wetlands as if they are equal. At the same time, there are tremendous difficulties with trying to undertake a nationwide A priority categorization scheme. That is true because the value of a wetland depends, in significant part, on its place in the landscape, its relationship with uplands and open water areas. So the administration plan advocates watershed planning as a scale at which, and a framework in which, we can best understand and evaluate in advance the differing functions and values of wetlands that can be incorporated into their protection.

However, at the time the plan was announced, we also issued a memorandum to our field staff which reiterated the flexibility that is present in the existing Clean Water Act. Section 404(b)(1) guidelines for decisionmakers, that as they evaluate individual permits, to consider the value of the wetland and the impact of the activity that is being proposed. So we would not expect the same rigor in an alternatives analysis for a low impact project in a lower value wetland as we would for a high impact project in a higher value wetland.

Mr. JOHNSON. We have just been warned of the 10-minute warning on a Journal vote. I think we best take care of that.

Does the gentleman from Minnesota have any remaining questions for this panel to take up when we return?

Mr. PETERSON. No, Mr. Chairman.

Mr. JOHNSON. All right. In light of that, I think then we will recess the subcommittee to allow the members to vote and come back promptly. I intend to pick up again as soon as I return.

We thank this panel for your participation in this hearing. And we will proceed to the next panel upon return. Thank you.

[Recess taken.]

Mr. JOHNSON. I bring the subcommittee back to order.

We welcome the second panel which consists of Mr. Ron Jones, director of the Texas Institute for Applied Environmental Research

at Tarleton State University in Stephenville, Texas; Dr. Terry Nipp, water quality and environmental policy project director, on behalf of the National Association of State Universities and Land-Grant Colleges in Washington, DC; Mr. Norman Berg, Washington representative of the Soil and Water Conservation Society, Washington, DC; and Dr. Jay Leitch, chairman, task force on wetland policy issues, council for agricultural science and technology, department of agricultural economics at North Dakota State University in Fargo.

Gentlemen, welcome. In keeping with my warning earlier, we are going to proceed right away in order to expedite the hearing. Your entire statement is received for the record and for the other members of the committee and staff. You may wish to summarize your statement; do whatever you are most comfortable with.

Mr. Jones.

STATEMENT OF RON JONES, DIRECTOR, TEXAS INSTITUTE FOR APPLIED ENVIRONMENTAL RESEARCH, TARLETON STATE UNIVERSITY, STEPHENVILLE, TX, ACCOMPANIED BY LARRY C. FRAREY, POLICY ANALYST

Mr. JONES. Thank you, Mr. Chairman and members, for the opportunity to come and share with you some of our ideas about how one might go about solving agricultural nonpoint source pollution problems.

For the past 4 years, we have been working on a dairy pollution problem in the Upper North Bosque River basin in Erath County, Texas, about 60 miles southwest of Fort Worth. In this watershed, we have large dairies which are point sources, but we also have a number of small dairies which are considered nonpoint sources of pollution. Our work has been funded primarily by the State of Texas, but we have also received funding from EPA region VI and the EPA's Office of Policy Planning and Evaluation. We have partners at the Center for Agricultural and Rural Development at Iowa State University, and from the Blackland Research Center at Texas A&M University.

I will try to keep this statement very short. I have provided your staff with a very detailed proposal in addition to our short summary we have given to you. We have also given a detailed proposal to various agricultural groups and environmental groups in the area here. I will be glad to go into any depth that you might want to.

Over the past 4 years, our institute has positioned itself between the agricultural producers in our community and their complaining neighbors downstream and downwind. We have attempted to sort out the facts both from a scientific standpoint and from a policy standpoint. We have come to question the adequacy of our current environmental policies and institutions and compliance strategies. We question their capacity to come to grips with agricultural nonpoint source pollution problems.

These current strategies are largely command and control regulatory programs that are underpinned by quasijudicial and administrative law processes. What we find is that they are very expensive to the producer and we find that they are also very expensive to the public sector. If we see these regulatory programs as being

the backbone of solving agricultural nonpoint source problems, we will never be able to afford it. We also find these processes very lengthy and they are adversarial.

In 1992, we recommended an alternative compliance program through a joint interim committee of the Texas Legislature. Those recommendations were put into legislative form and the 73d legislature passed that legislation, senate bill 503, unanimously. It significantly changed in Texas the institutional setting in which we would solve these problems. The new law established an agricultural agency as the lead agency at the State level to deal with agricultural nonpoint source pollution problems. The material we have given your staff builds on those initial recommendations.

The second thing we question is the adequacy of our science to develop appropriate definitions of success. Our science is woefully inadequate. We must have good definitions of success or else we will not know when we are finished solving the problem. For the first time in 25 years, those definitions of success are going to put us in the stream and they will also put us in the stream during wet weather events because that is when nonpoint source pollution flows. In our estimation, we have a significant effort in our mind ahead of us to establish good definitions of success. This doesn't mean we don't do anything in the interim, but we have to use some interim definitions of success.

We believe that our environmental programs will always be overly protective. So our notion is that the better the science, the better our policies and regulations will be. We think that it will probably take a decade to develop these definitions of success and we think it will require substantial investment.

In conclusion, let me say that in our proposed process for dealing with agricultural producers, we have combined voluntary and regulatory programs. When you do that, it is no longer strictly voluntary. But what our process does is to allow those individuals who wish to come into compliance with national and State environmental objectives, to do so outside of the traditional quasijudicial administrative law processes which require consultants and attorneys. It lets them use the more traditional planning approaches that USDA and their counterparts at the State level have employed with farmers over the last 30 years.

With that, I thank you very much.

[The prepared statement of Mr. Jones appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Jones.

Next, Dr. Nipp.

STATEMENT OF TERRY L. NIPP, PROJECT DIRECTOR, WATER QUALITY AND ENVIRONMENTAL POLICY, EXPERIMENT STATION AND EXTENSION SERVICE COMMITTEES ON ORGANIZATION AND POLICY, NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES

Mr. NIPP. Mr. Chairman, I would like to thank you for this opportunity to address the issue of nonpoint source pollution. I am speaking on behalf of the committees on organization and policy of the State agricultural experiment stations and the State extension

services, of the National Association of State Universities and Land-Grant Colleges.

The land-grant universities have been actively involved in addressing water quality issues for a number of years. This is not new territory for us. As a result of our involvement and as a result of our concern in regards to the policy debates of the last 2 or 3 years, the directors have appointed a working group of research and extension specialists to follow these policy debates and to develop a working paper that would outline the research and the education concerns of the university communities as they relate to these debates.

In my remarks today, I would like to briefly touch on three issues: First, the importance of multiagency cooperation, as we have heard about earlier today; second, the need for a rational structure for balancing voluntary and mandatory approaches to protecting water quality; and third, the roles of State research and extension programs in protecting water quality.

First in regards to multiagency cooperation. The land-grant universities have already been involved in numerous multiagency activities to protect water quality. For example, in the Midwest, five site evaluation areas have been established to monitor agricultural chemical movement in large-scale watersheds. These projects have been underway for several years. We have data and we have results coming in. These research efforts have been jointly supported by USDA, EPA, the U.S. Geological Survey, and by State funds. The State Extension Services have worked jointly with the Soil Conservation Service to develop demonstration projects and to develop programs in hydrologic unit areas. The State Extension Services have worked with their State agencies to address nonpoint source programs implemented in response to section 319 of the current Clean Water Act.

We have all learned over the last several years, that no Federal or State agency has all of the resources, expertise, or staff that will be necessary to address nonpoint source pollution or wetland issues. The Federal agencies, the States, and the universities each have a role to play. We would like to commend the chairman and this committee for taking the initial steps and fostering and encouraging and requiring that sort of interagency dialog and coordination.

Second, in regard to the need to balance a voluntary and regulatory set of approaches. There has been, and there will always be, considerable debate over the relative role of voluntary and regulatory approaches to address nonpoint source pollution. We would like to commend the possibility of creating a rational framework within which the scale and the severity of Clean Water Act requirements are clearly linked to the severity of the nonpoint source pollution problems that exist.

In the working paper that I have referenced, which we would like to submit for the record, we discuss this idea that you referred to earlier of creating a tiered and targeted approach to watershed and wetlands management. Given our time constraints, it is not possible to fully describe this approach here. But there are several fundamental concepts.

First, clearly water quality and wetlands issues must be addressed in the context of watersheds, as has been proposed by the earlier panelists. Second, within watersheds, it is possible to determine whether or not a watershed is at a low level of risk, if it is at a moderate level of risk, or if there is data indicating that there is a tendency toward risk, and then last, if, in fact, there is known contamination and problems that have to be addressed. It seems to our community to make imminent sense that the level of the programs, the severity of the regulations, and the intensity of the resources that are directed be linked to some sort of determination of the extensiveness of the problems that exist in those watersheds. To reach that end, of course there must be some partnership between the Federal Government and the States in defining a base set of criteria while allowing maximum flexibility at the State and watershed level to determine the nature of the contamination that might exist in that watershed.

We think that this approach will provide a mechanism for moving past the current sometimes intractable discussions about whether we should go with a purely voluntary or a purely regulatory approach and move into a discussion of integrating and balancing our voluntary programs, our incentive programs, and our regulatory programs, with a heavy emphasis on our voluntary programs.

The third issue that I would like to touch on lightly is the relative roles of research and extension. State research and extension programs are making a dramatic and measurable impact on water quality. This impact is not hypothetical. We can cite specific examples where nutrient and pesticide loading of ground and surface waters have been significantly reduced. With your permission, I would like to submit for the record descriptions of some State research and extension programs and some specific examples of the impact of these programs. The board on natural resources of NASULGC will also be providing separate written testimony describing activities of the State Federal water resources research institutes.

For years, the State agriculture experiment stations, the State extension services, and the water resources research institutes have pursued research and education programs in water quality, in integrated pest management, and in sustainable agriculture. Often the States have spent four to five times the amount invested by the Federal Government in addressing these critical issue areas. Our current programs can be strengthened and improved, but there is a clear and immediate need for increased support and participation by the Federal partner. As well, stronger and more direct linkages between the universities, EPA, and the Department of Interior need to be established in the areas of developing the research base, the knowledge needs, and the education programs necessary to address nonpoint source pollution.

Thank you.

[The prepared statement of Mr. Nipp appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Dr. Nipp. And your supplemental papers are received for the record and file of this committee.

Next, Mr. Berg.

STATEMENT OF NORMAN A. BERG, WASHINGTON REPRESENTATIVE, SOIL AND WATER CONSERVATION SOCIETY

Mr. BERG. Mr. Chairman, on behalf of the Soil and Water Conservation Society, I welcome this opportunity to share with you some thoughts on water quality improvement and wetland protection. Our society is an international organization. Most of our members are engaged in some phase of natural resource management. We will celebrate our fiftieth year come 1995.

My background includes a family farm and many years of work with the Soil Conservation Service in Minnesota, Idaho, and South Dakota. I was in South Dakota during the highlight days of the early soil bank when the pheasant population benefited immensely.

Public discussions of nonpoint source water pollution problems and their solutions, as you so well know, are not new. The USDA had, until this year, a yearbook of agriculture. Each year their publication had a major topic. In 1955, it was water. The foreword by then Secretary Ezra Taft Benson said, "I have little need to remind you that water has become one of our major national concerns. Farmers know only too well the hazards of pollution, and the deficiencies of good water for house, stock, gardens, and crops. They've suffered the fury of floods, of droughts, and the worries of soil erosion. Losses in life, security, productivity, and money have been great."

In 1972, I was asked by the International Joint Commission to cochair with a Canadian colleague a reference group that examined the impacts of various uses of all land in that great basin, including agriculture, on the quality of water in the Great Lakes system. Our report to the two nations in 1978 highlighted nonpoint sources as a major problem needing a much higher priority.

Many meetings have been held to seek and bring together those who are either contributing to the problem or wanting it solved. In 1988, more than 80 public and private and nonprofit organizations created the Water Quality 2000 initiative. It was an effort to develop an integrated national policy for both surface and ground water quality and concerns. Their report, "A National Water Agenda for the 21st Century," had controlling runoff from both rural and urban lands as one of the 12 challenges facing the future. It also suggested that water quality and quantity problems both be planned and managed on a watershed basis. Protecting water resources by preventing pollution was another key strategy. One of the impediments was the too narrowly focused water policies, along with, of course, the problem of insufficient funding.

So after what in reality has been decades of study, discussion, and debate, you have come to a decision point in 1994. Agricultural nonpoint source reduction, as evidenced by the number of bills before your committee, will no doubt be a major objective in the reauthorization of the Clean Water Act. Though there is a broad consensus that something must be done about these problems, differences of opinion remain between the agricultural and environmental communities about the proposed solutions. As the enactment process continues, it is our hope that Congress will do something that will encourage the Nation's farmers to adopt more sustainable agricultural production systems, and these systems need

to be practical and profitable and they also need to be more in harmony with our natural environment.

Our Nation does need an effective nonpoint source control program that: One, looks at and deals with pollution reduction on a priority watershed basis; two, that uses incentive-based programs to the extent possible to gain voluntary compliance; and three, then, after a reasonable time, mandates pollution control as a means of dealing with these landowners and operators who if by intent have failed to respond to a voluntary incentive-based approach. Improved water quality monitoring with data that can be defended is also essential to measure progress.

On April 1, 1993, our society, along with many others, testified about H.R. 1440. We supported that legislation. And as the land users are asked to reduce nonpoint source pollution, they should in turn expect Government to reduce the number of plans that they are expected to implement. Tough questions will have to be answered by you and your colleagues as you progress through your decisionmaking process. What watersheds should be targeted and how? What performance standards should be applied? And by whom should these standards be applied? Who should bear the cost of compliance and the maintenance of the measures? What time horizons are appropriate and practical to follow to allow voluntary compliance before action is mandated?

Recently our society has adopted three official policy positions, and we would like to have these included in the record. One is the statement on wetland conservation; the second deals with the conservation reserve program as contracts begin to expire on 36.5 million acres; and the third is a national nonpoint source water pollution control initiative. As with most complex problems, there is usually more than one solution, including doing nothing. In our opinion, we are beyond that point on these issues. The 1995 farm bill will have to address this along with many other issues.

One final note. Land and water are integral components of our natural world. They cannot be used or managed in isolation of one another. What affects land affects water and vice versa. On that premise, we would commend to your attention the recently published report from the National Academy of Sciences, "Soil and Water Quality: An Agenda for Agriculture." That study represents a significant point of departure for this and future discussion and debate over how to restore the integrity of the land and water resources on which our economic systems depend.

Thank you for this opportunity to testify.

[The prepared statement of Mr. Berg appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Berg.

Next, Dr. Leitch.

STATEMENT OF JAY A. LEITCH, PROFESSOR, DEPARTMENT OF AGRICULTURAL ECONOMICS, NORTH DAKOTA STATE UNIVERSITY, ON BEHALF OF THE COUNCIL FOR AGRICULTURAL SCIENCE AND TECHNOLOGY

Mr. LEITCH. Mr. Chairman, I am pleased to be here today to address wetlands and water quality issues. I am Jay Leitch, professor of agricultural economics at North Dakota State University. I have

been there since 1981 as a researcher and teacher in the areas of natural resource economics and policy, government finance, and research philosophy. I have served on the OTA's wetland advisory panel, as president of the Society of Wetlands Scientists, as scientific advisor to the Assistant Secretary of the Army, and as a senior economist in Interior's Office of Policy Analysis. I have submitted a written statement and a copy of "Wetland Policy Issues" and request they be inserted into the record.

[The publication "Wetland Policy Issues" is held in the subcommittee files.]

Mr. LEITCH. I represent the Council for Agricultural Science and Technology—CAST—a coalition of 30 scientific societies devoted to advancing the understanding and use of food and agricultural sciences and technology in the public interest. I have been asked to address wetlands and nonpoint pollution.

I intend to make two general points this morning regarding issues that are covered in far more detail in the CAST "Wetland Policy Issues" report. The first issue regards wetland definition and the second wetland value, both highly relevant to using wetlands to reduce or control nonpoint pollution.

With regard to the first point. Wetland is not well enough defined to be included in such legislation. After years of struggling among Federal agencies, the National Academy of Sciences is currently attempting to define wetland. The reason for the struggle is that wetland is a concept, like maturity or pornography, and cannot be described by scientists until society determines some ground rules. In other words, wetlands are not out there waiting to be discovered, they exist only in how society chooses to describe them. And we haven't been able to describe them well enough yet to include reference to wetland in such legislation.

Referring to wetland in nonpoint pollution legislation before it is well defined gives subsequent definers of wetland tremendous influence on the impact of that policy. The impacts of a definition on rural communities and agriculture can be extremely wide ranging, depending on just how "wet" wetland is subsequently defined to be.

In addition, social concepts differ among regions of the country and over time. Thus, including a poorly defined concept, such as wetland, in such legislation may mean that the impact will not be consistent geographically and it may change as society's perception of wetland changes.

My second point. Generalities and platitudes about the values of wetlands are not sufficient evidence that all wetlands are valuable for pollution control, nor that any wetland is more valuable than an alternative mechanism. There are three parts to this issue. First, when looked at individually, some wetlands do not provide many of the often cited long list of social benefits, or if they do, they do so only at a low or a modest level. I am a resource economist and I do understand the concepts of cumulative impact and marginal change. We attempt to account for both of those in our analysis of wetland value.

Second, while wetland may function in such a way as to recharge ground water, for example, if there is no demand for ground water in that area, there is no value for that function. Many parts of the upper Midwest, for example, having naturally alkaline ground

water have responded by developing rural water systems. Even if wetlands recharge ground water in these areas, there is little or no value for that function since the ground water has no value.

Social value requires both an ability and a willingness to pay for something. Having ecological or hydrological function only makes something physically available. That's not enough for economic value.

Third, and I think most important, is that knowing the value of only one option, in this case wetlands, does not help to make efficient choices. I won't argue that some wetlands have high values, but some have modest values and some have low values. Without knowing and comparing the values of wetlands to the values of alternative uses of wetlands or of other landscapes sacrificed to save wetlands, we cannot make the socially correct choices except by chance.

Almost everything can be shown to have value. But we trade off valuable resources every day so we can have outputs that are more valuable to society. Until we know the opportunity costs of using wetlands to reduce nonpoint pollution, it is only a gamble to say that wetlands should be protected because they are valuable pollution fighters. Some wetlands, in fact, may contribute to water pollution.

The three messages I want to leave this morning in summary, Mr. Chairman, are one, we need to agree what wetlands are before laws are written to regulate their use; two, wetlands are not all equally valuable to society, either because they don't all perform useful functions, or because there is no demand for the function; and three, the correct choices about resources cannot be made without knowing the full opportunity costs and all the choices.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Leitch appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Leitch.

Mr. Jones, I wonder if you would comment just briefly on the proposal that the Texas Institute has put together to facilitate environmental compliance by agricultural producers, how that compares with legislative proposals which have already been introduced? Is what Texas is doing radically different from other proposals or does it utilize some of the principles being talked about?

Mr. JONES. In our proposals we see the notion of combining voluntary and regulatory programs. We have spelled it out a little bit more. What we do is on the front-end of the process, we ask the regulatory agency to do an assessment, to set criteria for success, and then establish a timeframe for implementation of best management practices, and a timeframe for those best management practices to do their job. During that time, we turn that part of the program over to the State conservation agencies which basically supervise the local conservation districts who have a local presence. We really believe these problems are going to be solved at very local levels. The local conservation districts are all across the country, they have fairly uniform enabling legislation at the State level, and they work very closely with Federal USDA agencies. In fact, the SCS has contracts with every one of these local conservation districts.

So we let these folks then take over and develop plans, provide technical assistance, provide cost-sharing, as they typically have done. As long as a person is in that process and is making progress according to the conservation agency, he is not subject to regulatory authority. But if he refuses to start developing plans, or if he starts to develop a plan and quits, or says basically he is not going to change his operation to come into compliance, then that conservation agency has the obligation to turn him over to the State regulatory agency. Then he gets into that really tough gorilla of administrative law processes.

We call this planned intervention. We think that this process will probably take 12 years before we should begin to start trying to regulate water quality criteria.

Mr. JOHNSON. Thank you.

Dr. Nipp, you mentioned the need for multiagency cooperation in evaluating watershed and nonpoint source programs. How does the expansion of involvement in these issues balance with the need to streamline compliance plans for producers on the ground? That is, can we have multiagency participation while at the same time have the kind of coordination and one stop shopping, if you will, that our producers demand?

Mr. NIPP. An extremely good question. Ideally, the kind of interagency cooperation that we would be advocating would result in the agencies comparing notes amongst themselves as to what the requirements are that they would ask of producers, so that in the end you could create one stop shopping. The model that was proposed last year in H.R. 1440 certainly provides a vehicle for accomplishing that by giving SCS the lead in developing those farm management plans or working with farmers to accomplish that. The question that will be put to SCS and the challenge that will be put to that legislation is whether or not those plans adequately address the environmental protection requirements of other pieces of legislation such as the Coastal Zone Management Act of other EPA programs and of programs that are underway in Interior.

And so when we argue for interagency cooperation, we would argue that these different agencies, with their different requirements and different paperwork requirements, would reach agreement before they go to the farmer and put this burden of multiple compliance upon him or her.

Mr. JOHNSON. Dr. Leitch, I think you have excellent testimony about the definitional difficulties that we have in this area. They do certainly exist. But apart from some who would say that wetlands, whatever they are, have an inherent value, there is substantial evidence it would seem to point to the fact that certain kinds of wetlands in any event have substantial pollution impacts, contribute to environmental diversity, and are otherwise valuable to society at large. Given the rate of loss of wetlands that this country has seen over the last number of years, is it not important that we work with a working definition, as best as we can arrive at, of wetlands for now rather than waiting for the perfect final definition of wetlands?

Mr. LEITCH. Mr. Chairman, I wasn't suggesting that we push some environmental pause button and wait until we had the perfect definition. Certainly, there are wetlands that are extremely

valuable and ought to be preserved for a number of reasons. The disconnect though seems to be that those who are defining wetlands are not consistent with what the public perception of wetlands is. They are defining wetlands part way up the upland side of the hill. There are perhaps some ecologists and biologists who are attempting to make social policy through their science. I think we need to get the public involved as to their perception of what a wetland is. To them, a wetland looks something like the cover of this report, with cattails and turtles and ducks; whereas the 1987 definition includes lands where water doesn't even get to the surface.

So we ought not to wait until we have the perfect definition, but we ought to clarify what we are talking about now.

Mr. JOHNSON. Very good. I share that frustration of standing in the middle of a field that few lay people would ever identify as a wetland. I think most of the public think in terms of cattails and swampy ground. But it points to a dual problem. One is perhaps better definition; the second is also better public education about the nature of wetlands. They both go hand-in-hand, definitional and public education, and there is room for fault in both regards I suspect.

Mr. Berg, I appreciate your observations from the Soil and Water Conservation Society's point of view. I think the principles that you lay out are excellent and will contribute to our debate here as we work our way through what is a very difficult balancing act that necessarily has to go on. We clearly want this subcommittee to, on the one hand, represent the interests of production agriculture, but we want to do so in a responsible, credible fashion. That sometimes is not easy to do given the rhetoric that sometimes clouds the nature of the issues we have to deal with here. But I very much appreciate your points.

I want to thank the members of this panel. Your entire statements and supplemental records attached thereto are received for the record of the subcommittee.

Excuse me. It is called to my attention that two members have joined us. I would just ask if Mr. Barrett or Mr. Ewing have questions.

Mr. BARRETT. No questions, Mr. Chairman.

Mr. EWING. Thank you, Mr. Chairman. Nothing at this time.

Mr. JOHNSON. All right. No further questions here then from Mr. Barrett or Mr. Ewing.

We will proceed then to the last panel.

I would invite the third, and final, panel for this hearing to come forward. This panel consists of Mr. John Tarburton, who is secretary of the Delaware Department of Agriculture, on behalf of the National Association of State Departments of Agriculture; Mrs. Judy Olson, who is president of the National Association of Wheat Growers, and Mr. Bob Stallman, president of the Texas Farm Bureau, on behalf of the Clean Water Working Group; Mr. Steve Moyer, Washington representative of Trout Unlimited, on behalf of the Clean Water Network; Mr. Gerald Talbert, director of policy and programs of the National Association of Conservation Districts; and Mr. James Garner, State forester of Virginia and president of the National Association of State Foresters.

We welcome all of you to the subcommittee. Again, if you prefer to summarize your statements, that is fine with this committee. Your entire full statement is received for the record of the subcommittee so the entire membership and its staff will have them for its review.

We will begin with Mr. Tarburton.

STATEMENT OF JOHN F. TARBURTON, SECRETARY, DELAWARE DEPARTMENT OF AGRICULTURE, ON BEHALF OF THE NATIONAL ASSOCIATION OF STATE DEPARTMENTS OF AGRICULTURE

Mr. TARBURTON. Good morning, Mr. Chairman and members of the subcommittee. I am Jack Tarburton, secretary of the Delaware Department of Agriculture. I appear before you today on behalf of the National Association of State Departments of Agriculture, a nonprofit association of public officials representing the commissioners, secretaries, and directors of agriculture in the 50 States and four territories. I will summarize my remarks and ask that my full statement be included for the record.

As we look at the issue of natural resource protection and specifically water quality improvement, there are three objectives we can all agree upon. We want to protect and enhance our natural resources; we want to ensure that we have a safe, adequate, and affordable food and fiber supply; and we want to achieve the first two goals in a manner that services our economic needs. Farmers and ranchers across this country want to solve the problems with water quality directly attributable to agricultural sources. It is our responsibility as policymakers to provide them with programs, education, training, and financial assistance to accomplish that objective.

We only need look at the volumes of information featured in every farm and ranch publication during the past few years to recognize that an information explosion on the environment is taking place throughout the country. These environmental articles are not about whether farmers and ranchers should participate in the solution, but rather how they can incorporate conservation practices on their farms that protects water and soil resources.

Here are some guiding principles which should be used to develop programs and policies as we look for solutions to the questions production agriculture faces.

Natural resources management policy decisions should be driven not by assertion, but by scientific fact. Farmers and ranchers will respond if they know there are problems and if they are given reasonable alternatives on how to fix them. Improving water quality is a process which takes time for results. Education and technical programs should focus on identifying local solutions. And regardless of what programs are in place, nothing happens until the management practices are applied to the land.

Reauthorization of the Clean Water Act is an opportunity to review the quality of our Nation's water resources, assess our efforts to clean up impaired waters and prevent potential pollution, and set a course to protect the vital resource. Agricultural operations, along with urban, construction, septic, and natural sources require

a comprehensive and coordinated management strategy, much of which is already in place but in many cases inadequately funded.

In order to reduce complex and diverse nonpoint source pollution, a commitment of time and resources is necessary, similar to the 20-year commitment our country has made to eliminate point source pollution. However, management of this problem will require a different approach than that of point source pollution because, unlike point source pollution, nonpoint source pollution is primarily a weather-related phenomenon that can be managed, but not feasibly eliminated. Nonpoint source pollution is caused by the inadvertent discharge of pollutants from a wide variety of society's most essential activities.

The Clean Water Act is not alone in protecting America's waters from nonpoint source pollution. Other ongoing programs at Federal, State, and local levels must be funded fully, and coordinated with, not superseded by, the Clean Water Act. The reauthorized Clean Water Act's central focus for nonpoint source management solutions should be reasonable, voluntary, based on incentives, education, and technical assistance. The approach should emphasize the use of locally designed and applied, economically feasible, site-specific best management practices which do not infringe on private property rights.

The Clean Water Act contains valuable provisions for nonpoint source management embodied in section 319. Although section 319 has been historically underfunded and has been hampered by bureaucratic roadblocks, all States now have approved section 319 assessments and management programs. Amendments to the Clean Water Act should continue to focus on the 319 program as the means for States to identify nonpoint sources in critical areas, and to develop management programs to control discharge. Reauthorization of the Clean Water Act should provide increased funding and technical support for State management programs and local implementation. Management efforts funded by section 319 should be directed to priority areas based on scientific assessments that identify water bodies with impaired or threatened uses.

While strategies should be developed on a hydrologic unit, watershedwide basis using an approach that includes consideration of both surface and ground water quality. Programs should focus on cost-effective, site-specific practices for individual operations with flexibility for implementation.

The proper management of nonpoint source pollution lies in State and local efforts. State and local programs should provide for a mix of research, development, education, technical/financial assistance for both planning and implementing actions aimed at achieving State designated uses. Agencies at the Federal and State levels should harmonize objectives and coordinate funding for national and regional nonpoint source management programs.

Let me turn to another area that you, Mr. Chairman, have asked me to address, wetlands regulations impact on agricultural production. NASDA strongly believes that many of our Nation's wetlands are highly valuable resources that must be conserved and enhanced. At the same time, any Federal program to protect wetlands must also preserve private property rights and allow for a balance

between economical agricultural production and wetland conservation.

Conserving and restoring the Nation's wetlands will require an enormous commitment of privately owned land, money, and expertise. It cannot be accomplished without the involvement of the private sector, particularly the people who own wetlands.

The need for wetlands regulatory reform cannot be dismissed. The Federal regulatory wetlands program in effect today under section 404 of the Clean Water Act is not the product of a carefully considered and fully debated legislative policy. Current Federal wetlands law is the result of 20 years of bureaucratic decisions and judicial rulings under very general statutory authority, authority that does not mention the word "wetlands."

Finally, let me address section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 which requires that coastal States with federally approved coastal zone management programs develop coastal nonpoint pollution control programs to be approved by EPA and NOAA. NASA is attempting to provide a means of training State agricultural officials regarding these requirements, enabling them to contribute to the development of their State's program. We have developed and will distribute a process document to assist States in developing their agricultural plan.

In conclusion, Mr. Chairman, a number of bills have been introduced in the 103d Congress dealing with nonpoint source pollution and wetlands. Rather than attempt to address each of those pieces in detail, I have identified five general areas in my written statement dealing with funding and timeframes, watershed planning and site-specific planning, water quality monitoring and State reports, citizen lawsuits, and water quality standards. I would encourage you to review those remarks.

We appreciate the opportunity to participate in this very important hearing, and we look forward to continuing to work with the subcommittee on these issues. Thank you very much.

[The prepared statement of Mr. Tarburton appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Tarburton.

Next, Mrs. Olson.

STATEMENT OF JUDY OLSON, PRESIDENT, NATIONAL ASSOCIATION OF WHEAT GROWERS, ON BEHALF OF THE CLEAN WATER WORKING GROUP

Mrs. OLSON. Mr. Chairman and members of the subcommittee, my name is Judy Olson. I am president of the National Association of Wheat Growers. My husband and I have raised wheat, barley, and lentils in the Palouse region of Washington State. Today, I am speaking on behalf of the Clean Water Working Group, which is comprised of 37 agricultural and soil and water conservation organizations.

We appreciate the opportunity to comment on legislation regarding nonpoint source pollution on agricultural lands. I would like to begin with an explanation, and an illustration, of the basic principles which the Clean Water Working Group believes should be embodied in the Clean Water Act amendments to be considered by the Congress.

Better identification of impaired watersheds and better programs to manage sources which have been associated with impaired water quality are important goals of the Clean Water Act amendments. Where this is already occurring, and where impairment has been specifically related to agriculture, farmers have been willing participants in cooperative watershed projects. This fact is exemplified by ongoing efforts in the State of South Dakota to reduce sediment loadings in the Bad River watershed. Landowners are voluntarily adopting best management practices on cropland and rangeland, such as rotational grazing and conservation tillage. Local, State, and Federal agencies are cooperatively providing landowners with the technical assistance and encouragement they need to address locally identified sedimentation problems.

The landowners' efforts to reduce nonpoint source pollution in the Bad River watershed will lessen the need for constructing downstream dikes to control waterflow in the river necessary for power generation. The proposed dikes are estimated to cost $30 to $40 million, and the upstream success with BMP installation and resulting sediment loading reductions is an outstanding example of the cost-effectiveness of cooperative watershed projects. Only $1.4 million has been spent over the last 4 years in providing technical assistance, education, and cost-share assistance in the watershed, and these efforts have gained the participation of 80 percent of the landowners in the Plum Creek Watershed, the 160,000 acre target area of the Bad River Watershed being addressed at this time. This level of participation mirrors participation rates in cooperative projects established across the country under USDA's water quality initiative and the rural clean water program over the past decade.

The Bad River water quality project will serve as a model for addressing other problem watersheds in the State of South Dakota. Other projects will continue to focus on low-cost management improvements upstream in order to achieve broad landowner participation, while avoiding the more expensive water quality remedies downstream. These activities will take place without new mandates from the Federal Government. And over the next decade, water quality officials in South Dakota are confident that impaired watersheds will be assessed and treatment well underway without any new Federal directives to do so.

The Bad River project and others like it are based on the important principles of targeting resources to priority impaired watersheds, working partnerships between private landowners and Government agencies, voluntary participation, site-specific planning, and respect for private property rights. These principles are the key to success in putting agricultural nonpoint source programs in place, and are strongly endorsed by the Clean Water Working Group.

The primary limiting factor for more accelerated progress in the Bad River and other projects like it across the country is the resources, and not good faith. We believe that the Clean Water Act amendments should improve nonpoint source programs which will enable the good actors, like the landowners in the Bad River Watershed, to make the management changes necessary to address nonpoint problems identified with agriculture. Making adequate resources available to States to develop and implement their 319 pro-

grams is essential to achieving the goal of improving watershed planning and involvement of landowners, the stakeholders, in the watershed planning process. Increased 319 funds should be directed toward improving technical assistance and education programs in the States. Cost-share assistance should also be made available to individuals who are implementing new and costly management practices.

H.R. 3948 would authorize higher funding levels for both the 319 programs and State revolving funds, and we support these important provisions. But we have many concerns with the bill as introduced. A more complete discussion of the Clean Water Working Group's concerns with H.R. 3948 is contained in my prepared statement. Also included with that statement are an attached letter to the chairman of the Committee on Public Works and Transportation, and the Principles Statement of the Clean Water Working Group with regard to the Clean Water Act amendments which was developed last year.

In closing, the Clean Water Working Group encourages the Congress to include improvements in national wetlands policy in Clean Water Act amendments, and our specific recommendations will be discussed by the next witness.

Thank you for your consideration, Mr. Chairman.

[The prepared statement of Mrs. Olson appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mrs. Olson. Mr. Stallman, please proceed.

STATEMENT OF BOB STALLMAN, PRESIDENT, TEXAS FARM BUREAU, AND MEMBER, BOARD OF DIRECTORS, AMERICAN FARM BUREAU FEDERATION, ON BEHALF OF THE CLEAN WATER WORKING GROUP

Mr. STALLMAN. Thank you, Mr. Chairman. My name is Bob Stallman. I am president of the Texas Farm Bureau and a member of the American Farm Bureau Federation's board of directors. I am representing both organizations here today as well as the Clean Water Working Group. We appreciate the opportunity to be here today, and my comments will focus on the need for wetlands legislation within the Clean Water Act.

Much of agriculture has endorsed and continues to support H.R. 1330 introduced by Representatives Hayes and Ridge. We also appreciate Chairman de la Garza's efforts to become involved in this important issue.

Numerous changes are needed to wetlands policy. Central to this issue, we believe, is the need to protect private property rights. Some 75 percent of wetlands are on private property. Landowners should not have to bear the sole cost of wetlands protection for society at large. Congress should require compensation of landowners if restrictive Government regulation reduces the value or use of private property.

The Soil Conservation Service must play the critical role in identifying wetlands on agricultural land. With the expertise of SCS personnel in areas such as soil and wetlands science, as well as that agency's long history of working in cooperation with agriculture, we believe that SCS should be the sole agency that delin-

eates wetlands on agricultural land. And that is a broad definition of agricultural land to include rangeland, silvicultural, and perennial crop land.

Given the highly technical, but sometimes subjective, nature of wetlands delineation, Congress should establish a training and certification program for all wetlands delineators. This coupled with an appeals process that is subject to judicial review would force more integrity and accountability into the wetlands delineation process. However, we are opposed to third party involvement in appeals proceedings as contained in H.R. 3465.

We believe that national wetlands policy must include a classification system for wetlands functions and values. All wetlands do not share the same ecological value or perform the same functions. The degree of regulatory protection should be determined based on the values and functions present.

We are encouraged by language in H.R. 3465 that exempts prior converted cropland from permitting requirements and that recognizes that they are not navigable waters. However, it is incomplete in its current form. Congress should specifically exclude all prior converted cropland from both section 404 regulation and waters of the United States, regardless of the type of crop grown.

We also recommend that so-called "farmed wetlands," land cropped or intensively managed for agricultural production a majority of the time, should not be labeled jurisdictional wetlands. Farmed wetlands are areas that are wet so infrequently that they can be farmed without ditching, tiling, or draining. Clearly, these lands are more suited to agricultural purposes and there is little to be gained by regulating these areas as wetlands.

There is a need for Congress to strengthen and clarify that normal farming, ranching, and silvicultural activities will continue to be exempt from permit requirements. We are concerned with recent developments, specifically limitations on mechanized land clearing and reforestation, that could lead to a narrowing of this exemption. Several years ago, there was a similar attempt to exclude the construction of rice levees from the exemption protecting normal and routine farming activities. And being a rice producer, I was very concerned about that. H.R. 3465 moves favorably in that direction. In addition to the exemption of water management activities relating to cranberry farming, we also urge you to include similar activities used in the production of rice and aquaculture.

Mr. Chairman, we also have serious concerns about the expansive definition of dredged or fill material in H.R. 3465. Specifically, it appears that this legislation would lead to the regulation of any land use activity in or even near waters of the United States. We believe that this is excessive and unnecessarily broad.

In conclusion, we believe that these suggestions will greatly improve the wetlands regulatory program and reduce many of the inequities and difficulties faced by farmers and ranchers. We look forward to working with you in this effort.

[The prepared statement of Mr. Stallman appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Stallman.

Now we will go to Mr. Moyer.

STATEMENT OF STEVEN N. MOYER, DIRECTOR, GOVERNMENT AFFAIRS, TROUT UNLIMITED, ON BEHALF OF THE CLEAN WATER NETWORK

Mr. MOYER. I am Steve Moyer. I am government affairs director for Trout Unlimited. I am also the chair of the working group that works on polluted runoff for the Clean Water Network, which is a network of a diverse group of organizations, over 450 around the Nation, who are united together in trying to strengthen the Clean Water Act, which is the subject of our hearing today.

Polluted runoff or nonpoint source pollution in wetlands are two of the highest priorities of the Clean Water Network and of our working group. But programs are in two different places I think. In terms of polluted runoff control, the Clean Water Act has done relatively little and much more needs to be done. The program is not yet mature, is not yet effective, and we need to do a good bit more. In terms of section 404 and wetlands protection, we already have a program that we think works fairly well at protecting wetlands. We think we can fine-tune it to make it work a bit better to protect wetlands. And we agree that there can be much more done to make it work better in terms of the folks who have to get permits through it. Those are our objectives here I think as we look at these issues in terms of the Agriculture Committee.

I will talk about polluted runoff or nonpoint source pollution first. When you look at the different bills that are before the committee, it is easy to get confused I think. There appears to be an array of different provisions that may appear to be at cross-purposes or distinct from one another. But really, that is somewhat deceiving because there is a common theme in these provisions and in the administration's position paper in some of the things that you have heard in this hearing today, and that is to focus a new section 319 to watersheds that are impaired by polluted runoff. In other words, to have a targeted approach to polluted runoff control through section 319; to provide a great deal of flexibility to landowners and States about how they achieve polluted runoff control and achieve the water quality standards and designated uses for those waters that are impaired by polluted runoff; but yet make programs mandatory at least in terms of achieving results in terms of water quality control while allowing a great deal of flexibility about how you achieve the results.

Those concepts are there in the new House bill, they are there in the Senate bill that was just passed out of the Environment and Public Works Committee, they are there in the administration's position, and they are strongly supported by the Clean Water Network. Just one more point about that. We think the Oberstar bill which is before this committee does the job that I just described the best. Mr. Oberstar is from Minnesota. He has spent a long time on the Public Works Committee and has a great deal of history in this issue. I think he has done a very good job in crafting a bill that will provide meaningful solutions.

Another point about the bill that I think is critical for this committee is that a new section 319 program needs to fit well and mesh well with the farm bill programs that you have been instrumental in crafting and trying to make work. The farm bill programs have great potential for reducing polluted runoff. A lot of

that potential we think has been unrealized to date. A good example being the water quality incentive program having received very little funding throughout its history since 1990. That program needs to be energized and funded and made a real working part of the solution to this problem.

Another issue in trying to make the two laws work together is giving credit for landowners who are achieving polluted runoff control through farm bill programs the credit they are due. In other words, farmers who are complying with and involved with the conservation compliance program for reducing sediment control should be given credit for those reductions and for participating in those programs. Yet, they shouldn't be given a blanket exemption for any of the new section 319 requirements that the bills envision. This is because there are other sources of polluted runoff that are not controlled by the conservation compliance program that need to be addressed. So the key in meshing the two bills I think is giving credit where credit is due but not giving blanket exemptions for participation in some of the farm bill programs.

Another item that I will mention which I think makes a lot of common sense, I know common sense is a term that has been used a lot and has a lot of weight with this committee and with Congress, and that is controlling new sources of polluted runoff, such as new housing development, new timber areas where there is significant roads used to get the timber out. That is to make sure that those types of activities have management measures in place to keep this problem from getting worse. To us, that is a common sense approach and something that is in the Senate bill and in the administration's position, and we strongly support it.

A little bit about wetlands. First, I would like to say that it is scientifically possible to define wetlands. We agree firmly that the best science should be used to identify and delineate wetlands, and that is why we strongly supported the wetlands definition being put into swampbuster. It is right in the farm bill legislation. We strongly support the National Academy of Sciences' study which we are hopeful will produce new and better ways to identify and delineate wetlands. And generally we support any and all mechanisms to better educate the public about what wetlands are and where they are and to map them to let people know, especially landowners, where they are. We think these are the more reasonable solutions rather than trying to arbitrarily define wetlands so that we leave a lot of wetlands out from the section 404 program which will be destroyed eventually.

Just one more word about the Studds-de la Garza bill. We think there are lots of good provisions in that bill. One problem we have with it is that it gives SCS authority to delineate rangelands. We agree with Mr. Hebert who said this morning that the agency doesn't have the resources nor the expertise to do a good job of that, so we oppose that provision in the de la Garza bill but support many of the other provisions of that bill.

I will end there and would be happy to answer any questions.

[The prepared statement of Mr. Moyer appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Moyer.

We will now go to Mr. Talbert.

STATEMENT OF GERALD TALBERT, DIRECTOR, POLICY AND PROGRAMS, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS, ALSO ON BEHALF OF THE NATIONAL ASSOCIATION OF STATE CONSERVATION AGENCIES

Mr. TALBERT. Mr. Chairman, members of the subcommittee, I am Gerald Talbert, director of policy and programs with the National Association of Conservation Districts. I am also representing today the National Association of State Conservation Agencies. The 3,000 conservation districts in America and the 54 State and territorial conservation agencies have worked together for over 50 years with SCS and ASCS to provide technical and financial assistance, on the Federal level and also through State and local programs, available to private landowners to implement conservation plans and improve their properties. We have operated all that time on a voluntary incentive-driven approach and we still feel that is the best way to go.

I am going to briefly describe some of the items that impress us in the various bills that had been specified for this testimony. In general, we support H.R. 3465, the Studds-de la Garza bill, because it provides an enhanced and flexible role for States, and because it gives a balanced approach that allows for regional variations. We think it is very important that there is a training and educational outreach component to that bill. We support the process that would streamline the section 404 permit process; we think that is badly needed. And we certainly support the SCS role in wetlands determination in agriculture.

We also feel it is appropriate to mention H.R. 3759. We support the emergency appropriation of $340.5 million to address the damage caused by the floods and the fire last year. The money is to be used to restore waterways, to repair levees, and for wetlands. The effect is not only to correct the damage that exists today, but also to reduce future floods by restoring wetlands and buffers especially on those noncropped degraded wetland areas.

H.R. 2543, the Oberstar bill. We support the fact that it is taking a watershed approach, but we feel that the timeframes for the completion of the tasks that are outlined are too short. And also, in general, we think it is too prescriptive. The penalties for State noncompliance would be counterproductive we think to working relationships between point, nonpoint, and wetlands interests. And also the citizens monitoring programs we feel would be inappropriate if they would become an enforcement tool for the State.

H.R. 3948, the Mineta bill. Again, we feel that the deadlines that have been set for implementation are too short and not realistic for what it would actually take to implement those tasks. And it would require EPA to develop a new set of best management practices when they already have an adequate set that was developed as the requirements of section 6217 of the Coastal Zone Management Act reauthorization amendments and the SCS technical field guides.

H.R. 1440. We strongly support that concept. Not the least benefit of which would be the opportunity, as Dr. Nipp alluded to regarding multiagency cooperation, that the conflicts and duplication among the different requirements of different agencies could be worked out before that product is presented to the customer. It would result in a clear and coordinated plan and those things

would be worked out, giving that customer a better feeling about the services his Government provides him, and not putting him between a rock and a hard place. We also feel that conservation districts should be specifically mentioned in that bill for their role in plan development and approval.

Those are all the comments I was prepared to make. Thank you for the opportunity to testify.

[The prepared statement of Mr. Talbert appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Talbert.

And last, Mr. Garner.

STATEMENT OF JAMES W. GARNER, VIRGINIA STATE FORESTER, AND PRESIDENT, NATIONAL ASSOCIATION OF STATE FORESTERS

Mr. GARNER. Thank you, Mr. Chairman. My name is Jim Garner. I am the State forester of Virginia but current president of the National Association of State Foresters. We appreciate your willingness to hear the concerns of the National Association of State Foresters regarding the impact of nonpoint source pollution and wetlands protection.

The National Association of State Foresters represent the directors of the State forestry agencies across the Nation, including three territories. We are responsible by State law for the protection of 74 percent of this Nation's forest land. And we provide technical service to millions of nonindustrial private forest landowners. We are also responsible for the delivery system of several Federal programs, including forest stewardship and the forest stewardship incentive program. And every day we are working with the private landowners and the producers back home to nurture this vast forest resource to meet the needs of our society in an environmentally sound manner.

We believe that good forest stewardship through sound practices is a critical solution to achieving and maintaining clear and clean water. The forested watersheds are a primary source of high quality water.

The State foresters have been proactive in developing and implementing State programs for nonpoint source pollution over the last 20 years. Currently, 44 States have active programs, most of which are nonregulatory. We have been successful through education, instream monitoring, and primarily one-on-one assistance in the woods with the landowners and the producers. And we can document that we're getting pretty close to 90 percent compliance in sediment reduction and a high level of commitment from the loggers and the landowners who are willing and want to do the right thing. We have done this with limited resource since the State foresters receive hardly any of the section 319 money.

The State foresters however find ourselves in somewhat of a dilemma. We strongly support and actively work for the protection and enhancement of the Nation's water and wetlands, yet we have some real concerns about how some of the proposed legislation will direct us to reach our goal. Forestry activities have been divined as a new source of nonpoint pollution and this troubles us because all of the proposed legislation directs EPA to development manage-

ment measures for any new source of pollution. To us this means regulation. These regulations will be costly and burdensome for the private landowners who have already a proven and successful record. We can find no evidence that these new regulations will add to the effectiveness or the efficiency of our successful efforts.

We believe that the individual States should have the authority and responsibility to identify critical and problematic sources of pollution. The State should have the flexibility to focus on creative efforts to solve those specific problems and then be held accountable. The State foresters recognize the importance of our forested wetlands and their contribution to the quality of water and aquatic life. We believe that forestry is a land use that is most compatible with the goals of wetland protection.

We also know our private landowners; we work with them every day. We firmly believe that these landowners, if they are given the proper incentives and rewards, will provide the protection that is needed for these wetlands. These landowners need to have the opportunity to derive economic benefit from their forestland. If these wetlands are allowed to provide an economic return, these owners will manage those wetlands without compromising the integrity of the wetlands function or their values.

The 1988 final report of the National Wetlands Policy Forum found that appropriate silviculture operations can be carried out without damaging the wetlands ecosystem. It stated, "Private landowners, including timber companies, should be encouraged to pursue ecologically sound silvicultural practices on privately owned wetlands." Section 404 of the program presently enables these recommendations to be met by providing exemptions for ongoing and normal silvicultural activity. This exemption has served our country well and we hope that it can be extended.

In summary, the National Association of State Foresters request that you continue to utilize the existing categories identified by Congress in 1972, and we hope that you will remove all references to "new" and "existing nonpoint sources." We support the provisions that recognize comparable State and local programs and those that require EPA to consult professional organizations. We encourage the expansion of incentives and assistance programs. And we really encourage the language that assigns nonpoint source pollution to a single agency back at the State level. We believe that the administrative process will gain more landowner acceptance. And finally, we support using the National Academy of Sciences as the group to clearly identify a wetland. Attempting to put specific wetland types into the legislation will confuse the public and the practitioners.

Thank you, Mr. Chairman, for your kindness. My written report contains a more detailed response.

[The prepared statement of Mr. Garner appears at the conclusion of the hearing.]

Mr. JOHNSON. Thank you, Mr. Garner.

The gentleman from Kentucky, Mr. Barlow.

Mr. BARLOW. Thank you very much, Mr. Chairman. These are important hearings for agriculture, as we all know. Speaking for Kentucky, and I am sure speaking for farmers throughout the country, we all are very intent on ensuring that our practices safe-

guard the land and safeguard the water. We also are in a very competitive world and we have crops to sell if we are to remain in business. With the competition we have, we need to save every penny we can. I am concerned as we move ahead with clean water activities in a working arrangement with farmers that we not end hurting them economically and putting them in a noncompetitive position.

I am very impressed with the testimony we have received today from farmers and from the professionals who work with farmers on the land. People who are on the land dealing with these problems see how solutions can be achieved in a low cost, effective, efficient, easy to apply way, and I am very impressed with the care and thought that we've heard in the testimony from the farming groups and farming individuals here today and from the land management professionals.

I am also concerned, having viewed this area for some time now, that perhaps EPA is too far removed from farming as an agency and too bureaucratic. It doesn't really take the time to get down on the land and study for low cost, easy to apply solutions. It comes on in a very arbitrary way sometimes and it creates problems for everybody, especially the people who are trying to do well at the same time they are trying to eke out some small profit so they can stay in business year after year in a very troubled farm economy. We are under tremendous pressures, we all know that, in our farm economy.

So I just wanted to say how much I appreciate the hearings and appreciate very much the testimony that we're hearing today. Thank you, Mr. Chairman.

Mr. JOHNSON. Thank you, Mr. Barlow.

Let me say to Mrs. Olson and Mr. Stallman, I appreciate the work of the Clean Water Working Group. My experience is in the instances we get the Farm Bureau and the Farmers Union and all the agricultural groups in-between all in agreement on anything is not a daily experience and so we are always glad to see that kind of concerted effort at unanimity from production agriculture. I think all too often we tend to march off in nine different directions and that is not always helpful to where we are trying to go. So I appreciate your work in bringing the diverse groups in agriculture together.

Mr. Talbert, have there been any studies to indicate how much existing conservation compliance programs will impact nonpoint pollution in the country once they are fully implemented?

Mr. TALBERT. I am sure that is possible. When these practices are implemented, there are estimates that are developed by soil scientists that would indicate tons of soil saved and that sort of thing. These figures exist I think on a watershed basis. These are all very well recorded when these practices are implemented. So, yes, I think that information is available.

Mr. JOHNSON. I would think they would have an impact not just on soil erosion, but as well on chemical runoff and a range of other nonpoint pollution problems.

Mr. TALBERT. Yes.

Mr. JOHNSON. Let me say thank you to everyone on the panel. I think your insights are very valuable. We are at the early stages

of analyzing the legislation that is before us. No doubt, it is going to involve some give and take and we want to make as much progress as we can, understanding that it does involve the democratic process. But your input is very helpful to us. Your statements are fully received into the record and we will be sharing them with the staff and the other members of the subcommittee and ultimately the full committee. So thank you again for your contribution here. I think it is very constructive.

Also, without objection, Mr. Combest's statement is received for the record of the subcommittee.

With that, this hearing is adjourned.

[Whereupon, at 12:45 p.m., the subcommittee adjourned, to reconvene subject to the call of the Chair.]

[Material submitted for inclusion in the record follows:]

Testimony of
Thomas R. Hebert
Deputy Assistant Secretary for Natural Resources and Environment
U.S. Department of Agriculture

before the
SUBCOMMITTEE ON ENVIRONMENT CREDIT,
AND RURAL DEVELOPMENT
of the
COMMITTEE ON AGRICULTURE
U.S. HOUSE OF REPRESENTATIVES
March 23, 1994

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

My name is Tom Hebert, and I am Deputy Assistant Secretary for Natural Resources and Environment at the Department of Agriculture. Thank you for this opportunity to discuss the Administration's policies and pending legislation pertaining to wetlands and nonpoint-source pollution of water. I am pleased to offer testimony on behalf of Assistant Secretary James R. Lyons, who could not be here today, and on behalf of the Administration's Interagency Working Group on Wetlands and the Interagency Task Force on Reauthorization of the Clean Water Act.

Although my statement today focuses on USDA activities, it also demonstrates successful and continuing cooperation among the Federal agencies to address these important issues. At USDA, our goal is to work for a productive agriculture in harmony with a quality environment, and this is the goal we pursued when we participated in the interagency working groups. I believe we can achieve the goal of a productive agriculture and a quality environment, if everyone works together to craft realistic and flexible policies that give clear and consistent direction and guidance to citizens at the local level, where the details are best decided.

The agricultural community sees us right now wrestling with policies that have enormous implications for how they conduct business and carry out their lives. In dealing with such complex and crosscutting issues, we must be watchful that legislation and programs complement, not conflict with each other. I believe the type of cooperation that was evident in these interagency working groups is part of the answer to meeting this challenge.

As we consider these policies and changes in legislation, it is also critical that we listen to and reflect the concerns of the people closest to the natural resources we all care about. In many cases, they are the farmers and ranchers of this country, and the Department's employees in the field every day. The agricultural community is looking for understandable and consistent direction as it provides the food and fiber demanded by this country. This is no easy task, given society's evolving expectations for a sustainable and environmentally sound agriculture, and the realities of farming when you have no control over the weather and the forces of the marketplace.

These are some of the most important challenges we face, and we look forward to working with you Mr. Chairman, and the other members of this committee, to meet them.

WETLANDS

Wetlands are among our Nation's most critical and productive natural resources. Wetlands are the vital link between land and water. They provide a multitude of services to society, are the basis of many thousands of jobs, and contribute billions of dollars to the economy. Wetlands fulfill vital functions within the ecosystem, such as wildlife and aquatic life habitat and food chain support, water quality improvement and flood storage, and shoreline erosion control. In some areas, up to two thirds of our commercial and recreational fisheries are dependent on wetlands. This means that wetlands contribute over $15 billion annually to our economy for fisheries alone. A high percentage of the Nation's threatened and endangered species rely

directly or indirectly on wetlands for their survival and recovery.

Wetlands protection is important to achieving the goals of maintaining and restoring the physical, biological, and chemical integrity of our Nation's waters. Wetlands are integral to the functioning of watersheds and ecosystems. For example, forested riparian wetlands along the river's edge provide important sediment stabilization, habitat corridors (for aquatic and terrestrial species), and water quality improvement by reducing nutrient loading into water bodies. One study found a riparian forest in a predominantly agricultural watershed removed approximately 80 percent of the phosphorous and 89 percent of the nitrogen from the water before it entered a tributary of the Chesapeake Bay. Protection and restoration of wetlands reduce nonpoint-source pollution and provide other benefits throughout watersheds, including improved aquatic habitats and flood water control.

Our realization that wetlands are so important is a relatively recent development, after we have already lost over 50 percent of the wetlands that were present in the coterminous United States at the time of European settlement. Information available from the U.S. Fish and Wildlife Service shows a loss rate of 290,000 acres a year from the mid-1970's to the mid-1980's. More recently, we believe wetland losses have declined significantly in response to implementation of the Swampbuster provision in the 1985 Farm Bill, improvements in the implementation of the Clean Water Act Section 404 program, and more active State, local and private wetland protection efforts. While our Nation's wetlands are clearly doing better than from the 1950's to 1970's, when about 450,000 acres were lost annually, there is still a long way to go to achieve the Administration's goals.

Last August, the Administration released a comprehensive plan to improve Federal wetlands policy. This plan reflects broad consensus within the Executive Branch. It was developed by the Interagency Working Group with advice from a wide spectrum of

wetlands stakeholders. It contains a balanced, common sense, workable set of administrative initiatives and legislative recommendations that will make Federal wetlands policy fairer, better coordinated, and more effective in protecting wetlands.

The Working Group established five principles that serve as the framework for the Administration's comprehensive wetlands policy. First, the Administration supports the interim goal of no overall net loss of the Nation's remaining wetlands, and the long-term goal of increasing the quality and quantity of the Nation's wetlands. Second, the Administration encourages non-regulatory approaches, such as watershed-based planning, wetlands restoration, and public/private cooperation. Third, expanding Federal partnerships with State, Tribal, and local governments is essential to protecting and restoring wetlands in an watershed, ecosystem based context. Fourth, wetlands regulatory programs must be efficient, fair, flexible, and predictable and avoid duplication among regulatory agencies, while providing effective resource protection. And finally, wetlands policy must be based on the best scientific information available.
In implementing its plan, the Administration believes that the Federal government should lead by example as well as by directive. We are revising the existing Executive Order on wetlands to establish the no- overall-net-loss and net-increase goals.

Administration policy also places great emphasis on voluntary, non-regulatory wetlands restoration as an essential vehicle to achieve these goals. USDA's Wetlands Reserve Program (WRP) and the Emergency Wetlands Reserve Program (EWRP) are crucial parts of the Administration's wetlands restoration plans, as is reflected in the budget recently submitted to Congress.

The EWRP is being used in the Midwest to help farmers who wish to restore wetlands on property affected by the recent flooding. The initial sign-up for EWRP ended December

31, 1993. An allocation of $15 million was used to purchase permanent easements on 25,000 acres. The initial sign-up for the WRP, in 1992, resulted in 49,888 acres slated for wetlands protection. A second sign-up for the WRP was recently completed, with the total acreage offered for enrollment far exceeding the 75,000 acres scheduled. These programs have been well received by States and private landowners and are especially important in those States that historically have suffered large wetland losses. The Administration supports these types of Federal programs, which encourage restoration of wetlands through cooperative agreements with private and other non-Federal landowners. We have found that building partnerships with landowners, conservation groups, State and local agencies, and other interests is an extremely effective mechanism to pool financial and technical resources and expand wetlands restoration opportunities. These voluntary efforts are essential to the Administration's long-term goal of increasing the quality and quantity of our wetland resource.

The Administration believes that it is critical to increase State and local roles in wetlands protection, reduce duplication among wetland protection programs at different levels of government, and streamline decision processes for permittees. Toward this end, the Administration encourages Congress to adopt several measures. The first is to authorize the development of State/Tribal watershed protection programs which include minimum requirements for wetlands protection and restoration planning. Congress should also endorse the development of State/Tribal Comprehensive Wetland Plans. In addition, the Administration recommends that Congress provide EPA with the authority to use its Wetlands Grant program to fund both the development and implementation of State wetland programs.

The Administration believes Congress should authorize partial assumption of the Section 404 program by States and Tribes as an interim step toward full assumption. We also recommend that Congress amend Section 404(e) of the Clean Water Act to provide explicitly for the

issuance of programmatic general permits, with appropriate environmental safeguards, for approved State, Tribal, regional, and local regulatory programs.

Another key aspect of the Administration's policy is to streamline and clarify wetlands programs affecting the agricultural community. At the heart of this effort is a commitment on the part of Federal agencies to minimize duplication and reduce inconsistencies between Swampbuster and Section 404 provisions. I am pleased to report that the Administration has taken a key step towards fulfilling this commitment. On January 6, 1994, the Environmental Protection Agency, Department of the Army, Department of the Interior, and the Department of Agriculture entered into a memorandum of agreement (MOA) which ensures that the Nation's farmers can rely on Soil Conservation Service (SCS) wetlands jurisdictional determinations for purposes of both programs. The MOA provides more certainty for farmers and more effective coordination among Federal agencies with wetlands protection responsibilities. SCS has the lead responsibility for making wetland determinations on agricultural lands and all lands of USDA program participants.

The term "agricultural lands" is defined in the agreement to refer to those lands in agricultural production that have been altered to such an extent that the natural vegetation has been removed and cannot be used to determine whether the area is a wetland. Range lands, forestlands, wood lots, and tree farms are not considered agricultural lands in the MOA. This definition was carefully worked out among the agencies to reflect available resources, skills and experience, and to ensure the overall success of the MOA, and urge Congress to employ this definition and adopt this approach.

Also, we encourage Congress to adopt the MOA's approach of establishing SCS's role in identifying and delineating wetlands on non-agricultural lands which are contiguous to or contained within agricultural lands in Clean Water Act legislation. These non-agricultural

lands have a significant probability of being converted to agricultural lands; and it is more efficient for the SCS to do this work rather than other agencies. The MOA also includes provisions to ensure that all Federal agency personnel conducting wetlands delineations are properly trained and that standard, agreed-upon methods will be used in making such determinations. An ongoing review of the SCS wetlands delineation process that can be carried out by the other Federal agencies under the MOA will also add to the consistency of Federal wetlands programs.

In addition, when its comprehensive wetlands plan was released last August, the Administration issued a final rule that affirms the exclusion of an estimated 53 million acres of prior converted croplands from Clean Water Act jurisdiction. These are areas that, prior to December 23, 1985, were cropped and manipulated to the extent that they no longer perform the functions they did in their natural condition. The Administration plan recommends corresponding congressional action to define the term "waters of the United States" in the Clean Water Act to exclude prior converted croplands.

The Administration Plan does not explicitly address the permit exemptions listed in Section 404(f)(1). However, some proposals would change these exemptions. In general, we oppose revising these exemptions, which we believe would generate new controversy and confusion. In particular, the proposal to exempt discharges associated with "maintenance" is vague and creates the potential to exempt a broad range of activities. Similarly, the Administration is concerned that the language exempting water management activities associated with cranberry farming is too broad and may inappropriately exempt those cranberry farming activities with more than minimal environmental impacts. The Administration is eager to work with the Subcommittee to address these outstanding issues and clarify that general permits have and could more specifically and appropriately address such discharges.

The Administration policy also addresses the concerns of landowners for fair, efficient, and timely decision making. In August, EPA and Army issued guidance to field staff highlighting the flexibility that exists in the Section 404 program to apply less rigorous permit review to small projects with minor environmental impacts. In addition, key regulations are being developed by Army, in coordination with EPA and other members of the interagency Working Group, to improve the Section 404 permit process by establishing permit deadlines. The Army is also developing regulations to establish an administrative appeals process under the regulatory program so that farmers and other landowners can seek review of jurisdictional determinations, administrative penalties, and permit denials without going to court. The Administration policy also endorses the use of mitigation banks for compensatory mitigation under the Section 404 program within environmentally sound limits. Mitigation banks, especially when developed within the context of a watershed planning effort, can assist in integrating permit-by-permit mitigation of unavoidable wetland losses into an overall watershed restoration strategy.

We believe that the Administration's wetlands plan represents a course of action that is able to address this country's wetlands policy concerns. There will be more information for all of us to consider when the report of the National Research Council's Committee on Wetlands Characterization is released later this year.

CLEAN WATER

Let me change the focus of the discussion now to the subject of nonpoint-source pollution and the reauthorization of the Clean Water Act, with an update on USDA's water quality activities on private and Federal lands.

Private Lands

Our first major effort began with the Rural Clean Water Program in 1980 to implement

nonpoint source abatement practices and to monitor changes in water quality. It involved 21 projects that were selected on a watershed basis.

USDA's National Conservation Program in 1988 established protection of water quality from agricultural pollution as a national priority. As a result, agencies began to redirect resources where possible to address water quality concerns. This resulted in accelerated research in such areas as predictive models, agricultural chemical transport, plant species requiring fewer pesticides, and alternatives to pesticide use; better technical guidance for farmers and ranchers in the Soil Conservation Service's county field office technical guides; increased technology transfer; more educational and information materials directed to farmers and ranchers; and financial assistance, where possible, to help farmers and ranchers install cost-effective environmental practices and try new methods.

We are using the authorities and resources of 15 programs to help reduce agricultural nonpoint-source pollution. Today, we have about 135 water quality projects across the country. These projects deal with surface water and ground water.

One of the most significant and often overlooked programs improving water quality in this country is the erosion control land conservation provisions of the 1985 Food Security Act and the Food, Agriculture, Conservation and Trade Act of 1990. Under these provisions, Congress linked for the first time an individual producer's performance on environmental issues to that producer's eligibility for certain USDA farm program benefits. To remain eligible for specified benefits, farmers must develop and carry out approved conservation plans on highly erodible cropland. Since the inception of these provisions, SCS has worked with farmers to develop more than 1.5 million plans. Each plan contains an implementation schedule and the agency uses a system of random spot checks to monitor progress.

When fully implemented, these plans will significantly reduce soil erosion on some 142 million acres on participating farms in the United States. To date, more than 70 percent of the plans are implemented, and to meet the requirements established in law the remainder must be completed by December 31, 1994.

SCS estimates that fully implemented plans, combined with the grass and trees planted on the more than 36 million acres enrolled in the Conservation Reserve Program, will cut the soil erosion rate on highly erodible cropland in the United States by about 65 percent. This equates to a reduction from approximately 18 tons per acre to 6 tons per acre. In areas where sediment is the primary water quality problem, this program most certainly will help improve water quality.

As part of all of the efforts described here, USDA has also reached out to form partnerships with industry, farm organizations and with other agencies to help implement water quality improvements. Some of the progress includes trade publications featuring information for farmers and ranchers on agricultural water quality issues, and the development of the first data based on pesticide characteristics under different soil conditions.

USDA is working closely with EPA on many water quality issues and projects related to agriculture. We jointly have funded SCS staff positions for all EPA Regional and National offices, provided support to the National Estuary Program, and assisted EPA and the National Oceanic and Atmospheric Administration in developing technology-based management measures for the Coastal Zone Act Reauthorization Amendments. EPA has two persons detailed to USDA.

In addition, the U.S. Geological Survey and EPA are helping USDA monitor some of our water quality projects and are cooperating in several research projects.

The efforts to abate agricultural nonpoint-source pollution require a mix of expertise and program capability to implement effective water quality projects and conduct research. The agencies are cooperating on water quality efforts to the extent their resources allow.

We firmly believe the partnerships with agencies, agricultural communities, State governments, and local people must be continued and improved. Federal and State governments cannot implement water quality improvements without the support of the local people and the agricultural community. This is the key reason for the watershed approach and it must be fully supported by all Federal and State agencies.

Our experience at USDA has taught us some valuable lessons:

- First, patience. It takes time for water resources to respond to reduced nonpoint source loads. Pollutants are stored in the soil profile and sediments, the water and in aquatic biota. Adequate time must be allowed for these existing materials to be removed before full recovery can be expected.

- Second, rely on observable results. Given the amount of time it takes for water resources to respond, often the first observable result is the adoption by farmers and ranchers of practices known to reduce nonpoint-source loads. Observable changes in the physical, chemical and biological characteristics of water will follow.

- Third, on-farm application is essential. When farmers are able to relate their farming activities to the water quality concern, they tend to be willing participants in the solution.

- Fourth, program implementation can be enhanced at the local level with an appropriate delivery system.

- Fifth, our experience shows that solutions which come from the bottom up, rather than the top down, work best. Local solutions and local controls, with appropriate Federal and State backup, are preferable.

- Sixth, use a watershed approach and target our public resources to areas where there is identified need. This is the preferred of two options that President Clinton's Clean Water Act proposal offers to states.

The nonpoint-source problem is considerable. Since 1972, this country has achieved considerable success in substantially reducing the discharge of pollutants in our lakes, rivers, estuaries, wetlands and coastal waters, primarily through the control of point sources of pollution. While point source discharges continue to present an environmental threat in some areas, our Nation's waters are endangered by many other activities that are not associated with point sources. Evidence of these problems can be seen in the decline of the salmon populations in the Pacific Northwest and the oyster stock in the Chesapeake Bay, in ongoing contaminated fish problems in the Great Lakes, in the declining health of the Everglades and the coral reef systems in Southern Florida.

The potential causes of impairment of a waterbody are as varied as human activity itself. Aquatic ecosystems may be threatened by discharges from industrial or municipal sources, from urban, agricultural or other forms of polluted runoff, from habitat disturbances and hydromodification, discharge of contaminated ground water to surface water, from overharvesting of fish and other organisms, from the introduction of exotic species, and even from deposition of pollutants originally emitted into the atmosphere.

Preliminary estimates by EPA show that it would cost $8.8 billion over 20 years to control agricultural and silvicultural nonpoint sources on all lands. We have not yet estimated the

needs for the more targeted approach we are supporting today, but the cost should be lower. But if mining, urban sources, roads and airborne sources are added, the magnitude of the problem becomes apparent. In addition, the problem, once solved, doesn't stay solved. Land ownership and use changes, as does the weather. Society's desire for a rapid fix of the nonpoint-source problems runs into the difficult problem of making major shifts in farming, mining, and road building practices. This is why the State and local governments must play a key role.

The watershed approach in the President's initiative is very sound and should effectively accomplish the objectives of the Clean Water Act without major public resistance. However, it will require people with experience in watershed planning and resource management at the local level to facilitate the process. USDA can help provide service at the local level in partnership with EPA and State governments.

In the continental United States there are well over 10,000 watershed units identified by the U.S. Geological Survey Hydrologic Unit Catalogue System. These watersheds vary in size from 250,000 acres to 450,000 acres. They are "nested" within 300 to 3,000 larger basins. Smaller watersheds are preferred for resource planning because local people can better focus upon and understand their influence on smaller basins.

From our experience, we would recommend three ways to make the watershed concept work for water quality.

• *First, continue to involve USDA.*

We have the field staff, the experience, and the multi-disciplinary skills necessary to supplement the efforts of other agencies in implementing the watershed approach.

• *Second, supplement the watershed approach with flexible programs*

This is especially important because no two watersheds are alike. Some may need only very low intensity evaluations and plans of action because they have obvious or very few problems. Flexibility is important also because watershed management is a new concept for Clean Water Act implementation. Different approaches will be needed. The States and Federal government need flexibility in implementation and funding. We must rely on the States, with Federal government assistance and oversight, to develop watershed programs tailored to their State resource conditions and local citizen involvement.

• *Third, involve local people and institutions.*

The people involved in the problem need to be involved in the solution. Without general support, a water quality program is doomed for failure. To illustrate, how do you really know how much fertilizer or pesticide a farmer is applying? If our water quality programs are to be successful, farmers and ranchers must feel ownership of the program and the need for solutions. River Basin authorities, State governments, conservation districts, county governments, or other local organizations should all play a role in developing these voluntary programs. Federal government agencies should provide their skills and resources to support the process.

Federal Forest Land

Now lets turn to the National Forest System. The Forest Service is responsible for managing for multiple-use purposes the 191 million acres of forest and range land that comprise the National Forest System . The challenge for the Forest Service is to manage with an ecosystem perspective for all uses, while ensuring the protection of the basic soil, water and air resources that are crucial to sound stewardship of the land.

The Forest Service is actively involved in research, development and implementation of management practices designed for the control of nonpoint sources and the protection of forested watersheds. This leadership extends back to the formation of the National Forests. National Forests were originally withdrawn from the public domain for the purpose of securing favorable conditions of water flow and to ensure a continuous supply of timber. It is not possible to maintain favorable conditions of water flow without protecting watershed condition and water quality. Based on this experience and knowledge, the Forest Service has developed a watershed management strategy for protection of nonpoint sources based on two basic components: prevention and rehabilitation.

Our prevention program is designed to prevent the creation of problems from ongoing and future resource management activities. Land management prescriptions are designed to protect water quality and associated beneficial uses. Monitoring is necessary to ensure that practices are implemented as designed and are effective in providing the necessary protection. Mitigation is used when monitoring shows that unforeseen problems have been created. Finally, land management prescription design criteria are adjusted, where appropriate, to prevent problems with future activities. This iterative process is designed to allow for land use while protecting water quality and water dependent resources in the long term. Land management prescriptions are currently being designed and adapted with the best science available.

Our rehabilitation program is designed to restore those lands that have been damaged by past activities. Lands needing improvement have been identified and inventoried. These lands will be restored to reduce and eventually eliminate significant contributions to the nonpoint source problem.

Forest Service policy is to comply with all State requirements for protection of water quality in the same manner and to the same extent as a nongovernmental entity. In most States, we have developed and implemented working agreements. Under these agreements, the Forest Service is responsible for implementing State nonpoint-source water quality programs on the National Forests. Through review of proposed Forest Service programs and monitoring of activities, the States are assured that Forest Service programs meet State nonpoint source water quality requirements.

USDA and EPA have been operating with the understanding that, as watersheds are identified for treatment, critical areas and sources will be identified, land management prescriptions identified and a schedule set for implementation. The time frame for implementation will vary with size and complexity of the treatment. Water quality standards should be used to identify problem areas and to measure the effectiveness of land management prescriptions.

At the end of the implementation period, if water quality standards are not met, an evaluation should be made to determine (1) if the level of treatment applied was adequate but the system has not been given enough time to respond; or (2) if additional treatment is needed. If it is determined that additional treatment is needed, the process would be repeated.

Implementation of management measures in impaired and threatened areas could be based on site specific plans as an alternative to National management measures, if the plans are effective in controlling nonpoint-source pollution. Conservation or management measures should be designed to specifically address the identified water quality problems.

Future farm bill programs need to be responsive to the natural resource and environmental

concerns of the nation and go beyond water quality alone to deal with issues such as wetland restoration, endangered species habitat protection and restoration and aquifer and groundwater protection. USDA needs flexibility, not more restrictive legislation.

As we have indicated, USDA supports the emphasis on a watershed approach for nonpoint source control. This is largely consistent with the direction already taken by the Forest Service and the Soil Conservation Service in implementing new ecosystem strategies for natural resource management. Control of nonpoint sources can be best achieved if approached in a holistic manner through watershed management. An analysis of watershed conditions, and an understanding of the relationships of land management activities on the water resource, allow a meaningful way to allocate and distribute land management activities in an efficient and effective manner.

I believe that, given clear and consistent guidance and flexibility, American farmers and ranchers will make the right decisions for wetlands and water quality up and down this nation's watersheds.

I appreciate the opportunity to testify today and we will be happy to respond to your questions.

TESTIMONY BEFORE THE UNITED STATES HOUSE OF REPRESENTATIVES COMMITTEE ON AGRICULTURE, SUBCOMMITTEE ON ENVIRONMENT, CREDIT AND RURAL DEVELOPMENT

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Introduction

Over the past 25 years, public support for pollution-control initiatives has grown to encompass most major sectors of the United States economy. Currently, agriculture is under intense pressure to do its part to prevent and abate degradation of the nation's water, air and land resources. Agricultural nonpoint source pollution was not a high priority when Congress enacted the Clean Water Act (CWA) amendments of 1972. At that time, the United States faced dramatic levels of pollution from industrial and municipal point sources that appeared to threaten the country's future. However, as point source controls have produced at least moderate water quality amelioration, attention has turned to the ubiquitous complement to point source pollution: nonpoint source pollution, particularly polluted runoff.

Agriculture is responsible for a significant portion of total nonpoint source pollution in the United States. This fact is not surprising since nonpoint source pollution occurs primarily as storm runoff across millions of acres of land, and agricultural producers control and intensively manage huge portions of that land. Appropriate land management is the key to controlling nonpoint source pollution.

Agricultural nonpoint source pollution affects the entire hydrologic cycle. Storm runoff from agricultural land may transport sediment, dissolved nutrients, pesticides and other constituents in amounts sufficient to cause significant impairment to the chemical, physical and biological equilibrium of surface waters. Agricultural pollutant leaching--nonpoint source pollution that moves toward groundwater reserves rather than to surface water--is of particular concern in rural areas because rural America is highly dependent on groundwater for potable water. Finally, some agricultural production activities, e.g., intensive livestock production, may produce gaseous emissions that return to the land in the form of polluted precipitation, with obvious implications for the land and surface water on which that precipitation falls.

Because agriculture has only recently assumed center stage in the nation's ongoing environmental debate, the agricultural community now finds itself at a significant disadvantage as it begins to move toward environmental compliance. *If agriculture had been a central player in the nation's pollution control efforts throughout the 1970s and early 80s, prevailing pollution control policies, institutions and compliance strategies would be far different--and more amenable to agricultural interests--than at present.* Moreover, because agriculture has faced strong environmental compliance pressure for only a relatively short time, representatives of the agricultural community now continually react to legislative proposals from the environmental community rather than create alternative initiatives that include the perspectives of agricultural producers.

The Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University was created by the Texas Legislature to develop alternative environmental policies to benefit the State of Texas and the entire nation. Since its inception, TIAER has expended considerable resources analyzing alternative policies and institutional arrangements to assist agricultural producers faced with increasing environmental compliance obligations. TIAER includes interrelated programs in the environmental sciences, economics and public policy to help insure that the alternative policies developed by the Institute are based on sound scientific and economic data. As a result of its work in the Upper North Bosque River watershed in North Central Texas, TIAER has developed detailed, watershed-based strategies for preventing and abating agricultural nonpoint source pollution in watersheds across the country, and has incorporated those strategies into proposed legislation for CWA reauthorization. The following material summarizes those strategies and the rationale on which they are based.

The Need for Alternative Policies for Agricultural Environmental Compliance

Many agricultural operations are fundamentally different from the industrial point sources of pollution for which prevailing environmental policies, institutions and compliance strategies were developed. Although economies of scale tend to create increasingly larger operations in most agricultural production sectors, the traditional "small farmer" still exists, and actually thrives, in many parts of the country. The administrative law process that mushroomed in the wake of legislation to control point source pollution is foreign to most agricultural producers. While big industry created legal and engineering departments to deal with mounting environmental regulation, most agricultural producers cannot afford that tack. As long as environmental regulations and the administrative process underpinning those regulations remained predictable, industrial and municipal point sources could internalize the costs of environmental compliance and pass those costs on to the public as higher prices or tax increases.

Concentrated livestock operations include both point and nonpoint sources of pollution within a single facility. Animal confinement and processing areas are point sources subject to state and United States Environmental Protection Agency (EPA) permitting processes. On the other hand, many such livestock operations apply manure to crop or pasture land either to provide nutrients for plant growth or simply as a waste disposal method. These manure application fields exhibit the same nonpoint source pollution characteristics as agricultural fields not associated with livestock production. Even relatively small livestock operations are now required to obtain point source discharge permits in many states. For example, in Texas, the Texas Natural Resource Conservation Commission (TNRCC) requires dairies with 250 milking head or more to obtain a discharge permit through an administrative hearings process. Permit applications are often contested, with legal and expert witness fees running as high as $100,000 for two weeks of hearings. When producers attempt to represent themselves within the administrative law process rather than paying for professional legal or engineering services, the time spent away from their operations can produce serious consequences due to insufficient farm management.

While row-crop farms are not categorized as point sources requiring a discharge permit, the owners of such facilities share many of the same frustrations experienced by livestock producers in dealing with existing regulatory institutions. Small agricultural producers have limited credit

lines and are not positioned to internalize environmental compliance costs for deferred recoupment in the marketplace. Further, many producers are subject to highly regulated markets which tend to limit the application of the "polluter pays" principle. Milk producers and many farm commodity producers fall within this category. Absent significant government cost-sharing or innovative strategies to manipulate government-controlled markets, these agricultural producers view investments in pollution control technologies and management practices as unrecoverable expenses.

Agricultural producers differ from traditional point sources of pollution in yet another respect: they have at their disposal a unique and extensive web of government farm-services and conservation agencies. This network begins with local conservation districts which are relatively uniform, legislatively created institutions existing in virtually every county in the United States. These districts were established throughout the 1930s and 40s to control soil and water erosion. District members democratically elect a local governing board. Districts in over half of the states have remarkable, albeit seldom invoked, ordinance-making power to control inappropriate private land use within the districts.

State conservation agencies coordinate the activities of local conservation districts and help link the districts to federal assistance programs. Federal agencies like the United States Department of Agriculture's (USDA's) Soil Conservation Service (SCS), Agricultural Stabilization and Conservation Service (ASCS) and the Extension Service maintain agreements and memoranda of understanding with both state conservation agencies and local conservation districts for the provision of financial, technical and educational services to agricultural producers. For several decades, producers have accessed these federal agricultural assistance programs on a voluntary basis through local conservation districts.

Beyond the social and economic distinctions between agricultural operations and other production sectors of the economy, nonpoint source pollution does not lend itself to the command-and-control strategies developed for point sources of pollution. While point source pollution is often characterized as "end of the pipe," nonpoint source pollution is by definition a diffuse phenomenon. Site inspection like that employed for point sources will simply not work to control nonpoint source pollution since the required number of inspectors and associated costs is clearly prohibitive. No regulatory agency can dispatch sufficient inspection personnel to even a fraction of existing agricultural fields during storm events. Moreover, EPA and state environmental regulatory agencies enjoy neither a local presence nor a close working relationship with most agricultural producers. One Northeastern dairy operator recently commented to the media that the state environmental regulatory agency "lacks understanding of farmers in general."

"Planned Intervention": An Alternative Institutional Approach

Given the inadequacies of command-and-control regulation in dealing with agricultural nonpoint source pollution, as well as the existence of an extensive network of conservation agencies accustomed to providing technical, financial and educational services to producers, an alternative institutional approach for controlling agricultural nonpoint source pollution becomes readily

apparent. However, while most producers desire to cooperate with environmental compliance programs to the greatest extent economically feasible, the presence of a few "bad actors" necessitates the inclusion of an enforcement mechanism in the institutional scheme to spur widespread compliance. A carefully planned program which links voluntary environmental compliance efforts by producers, under the direction of state conservation agencies, with an enforcement program for "bad actors" is termed "planned intervention." In keeping with prevailing notions of cooperative federalism to address environmental problems nationally, "planned intervention" is grounded on state institutional leadership with assistance by federal agencies.

"Planned intervention" is voluntary only to the extent that producers are provided a flexible timeframe and a range of choices for implementing management practices and technologies to control nonpoint source pollution. Recalcitrant polluters who refuse to cooperate with the state conservation agency to implement necessary management measures are referred to the state regulatory agency for enforcement action. However, for "planned intervention" to function effectively, state conservation agencies and environmental regulatory agencies must cooperate from the outset to establish essential program parameters. For example, the regulatory agency must identify water quality criteria for successful pollution abatement to provide producers a static target by which to gauge pollution prevention and abatement efforts. Unfortunately, almost no state agencies have developed nonpoint source water quality criteria to provide such a measure of success. Until those criteria are developed, interim criteria may suffice, e.g., the extent of implementation of technologies or management practices by producers, physical-process modeling predictions, or percent pollutant loading reductions. In addition to a pollution-abatement target, regulatory agencies and state conservation districts must cooperate in developing and articulating the following parameters: 1) the permissible timeframe for management practice development and implementation by producers; 2) the timeframe for expected water quality amelioration subsequent to implementation of management practices and technologies; and 3) the criteria according to which recalcitrant polluters are referred to the regulatory agency for enforcement action.

During the 1993 legislative session, the 73rd Texas Legislature enacted Senate Bills 502 and 503 which provided for a "planned intervention" approach to agricultural nonpoint source pollution. The new laws call for the Texas State Soil and Water Conservation Board (TSSWCB) to develop water quality certification programs in watersheds significantly degraded by agricultural nonpoint source pollution. In those watersheds, TSSWCB coordinates the efforts of local conservation districts and federal agricultural assistance agencies to help producers in developing site-specific "water quality management plans" to control nonpoint source pollution. TSSWCB, in cooperation with local conservation districts, also is responsible for investigating complaints of agricultural nonpoint source pollution across the state. Once an investigation is completed, complainants and producers alike may request a hearing before members of the local conservation district. Any party dissatisfied with the results of that hearing may appeal to TSSWCB for an additional hearing. This local alternative dispute resolution process provides all parties concerned an inexpensive alternative to traditional litigation. Where cases of pollution are confirmed, TSSWCB and local conservation districts assist producers in developing

"corrective action plans" to remedy the situation. Finally, in the event producers fail to cooperate with TSSWCB's program, TSSWCB rules require the agency to refer those cases to TNRCC, the state water quality regulatory agency, for enforcement action.

"Planned Intervention" on a National Scale

"Planned intervention" provides a viable institutional framework for inducing environmental compliance by agricultural producers. Over the past six months, TIAER has worked with representatives of the agricultural and environmental communities in Washington, D.C. to incorporate the "planned intervention" approach into CWA reauthorization legislation. That work has produced the *Agricultural Watershed "Planned Intervention" Act of 1994*, which may soon be introduced in the House by Congressman Stenholm. The *Act* details application of "planned intervention" in "targeted watersheds," and also provides for the development of nonpoint source water quality criteria and a consensus-building forum for representatives of the agricultural and environmental communities concerning environmental compliance by agriculture. Thus, the *Act* resolves two issues which have troubled environmental policymakers addressing agricultural nonpoint source pollution: 1) development of an institutional linkage between voluntary and enforcement programs; and 2) implementation of those programs on a watershed basis.

Under the *Act*, states must revise their section 319 nonpoint source management programs to provide for a state Agricultural Lead Agency to direct agricultural nonpoint source pollution prevention and abatement efforts in the state. The *Act* provides that the Agricultural Lead Agency "shall be the State conservation agency charged with coordinating the activities of local conservation districts, or other State agency capable of developing and implementing agricultural nonpoint source pollution prevention and abatement programs in watersheds significantly impacted by agricultural nonpoint source pollution." A State Nonpoint Source Pollution Action Committee is established to assist the Lead Agency in developing the State Agricultural Nonpoint Source Management Plan. The Lead Agency designates Targeted Agricultural Watersheds, i.e., watersheds "significantly impaired by agricultural nonpoint source pollution." Thereafter, the Lead Agency and local conservation districts identify Micro-watersheds within Targeted Watersheds. Micro-watersheds must be sufficiently small to allow all stakeholders in an area to meet as a Micro-watershed Consortium to identify pollution problems, develop collective solutions, and monitor for improved water quality subsequent to the implementation of improved technologies and management practices. Local conservation districts help organize and facilitate Micro-watershed Consortia meetings.

Once the Lead Agency designates a Targeted Watershed and associated Micro-watersheds, the Lead Agency and local conservation districts identify types of agricultural operations in the Micro-watersheds that must develop and implement site-specific Water Quality Management Plans. Those operations must develop Plans within three years, and implement those Plans no later than five years thereafter. The *Act* provides for complaint investigation by the Lead Agency and an alternative dispute resolution process within local conservation districts similar to that existing in Texas. Producers failing to cooperate with the Lead Agency to develop Water

Quality Management Plans or Corrective Action Plans are referred to the State Water Quality Regulatory Agency for enforcement action.

A Local, Micro-watershed Approach

Local participation in problem identification and resolution is the essence of the American democratic process. Due to the problems inherent in identifying and controlling nonpoint sources of pollution, local action at the watershed level becomes imperative. Micro-watershed Consortia in Targeted Watersheds provide a vehicle through which all Micro-watershed Stakeholders can meet to develop collective, innovative strategies which take into account local constraints. The *Act* calls for a broad interpretation of the term Micro-watershed Stakeholder to include "all land holders within a Micro-watershed, as well as other parties having a direct interest in issues affecting water quality within the Micro-watershed." Local conservation districts organize and facilitate Micro-watershed Consortia meetings.

Micro-watershed Consortia will likely be faced with many difficult issues. For example, available cost-sharing may prove insufficient to cover all agricultural producers required to develop and implement site-specific plans. In those cases, Consortia members must collectively provide recommendations to local, state and federal conservation agencies concerning the allocation of limited financial assistance. Consortia members are most knowledgeable about local strengths and constraints, and thus best situated to assume that role. Similarly, Consortia members are well suited to identify recalcitrant polluters and apply peer pressure to remedy inappropriate land-use activities.

The Micro-watershed Consortium also is an appropriate group to conduct water quality monitoring at the mouth of a Micro-watershed to gauge the success of pollution prevention and abatement efforts. Physical process modeling can provide an initial indication of the pollutant loading expected subsequent to the implementation of Water Quality Management Plans by Micro-watershed Stakeholders. If water quality fails to approach modeling predictions over an extended period of time, Stakeholders must reassess the management practices employed and identify areas for additional improvement. In the event conflict arises within the Micro-watershed concerning the source of pollutant loadings, Consortium members can install additional automatic water quality sampling equipment to isolate specific areas for more careful analysis.

Micro-watershed Consortia can function effectively in watersheds targeted for both agricultural and non-agricultural pollution abatement. Although agriculturally oriented local conservation districts provide a pre-existing local institution around which to form Micro-watershed Consortia, *all* landholders within the watershed, agricultural and non-agricultural, are included under the definition of Micro-watershed Stakeholder. In mixed Targeted Watersheds, operators of industrial and urban point sources and non-agricultural nonpoint sources of pollution must actively participate in Consortia meetings to develop comprehensive water quality strategies. While local conservation districts and the Lead Agricultural Agency are charged with coordinating assistance only for agricultural producers, the State Nonpoint Source Pollution Action Committee provided in the *Act* is designated to "coordinate the activities of the

Agricultural Lead Agency and other agencies engaged in nonpoint source pollution prevention and abatement activities." Thus, once Micro-watershed Consortia in mixed Micro-watersheds develop comprehensive water quality strategies, the State Nonpoint Source Pollution Action Committee can help coordinate agricultural and non-agricultural assistance at the state level.

National Demonstration Watersheds/National Constituency Committee

In addition to the "planned intervention" institutional arrangement, the *Act* provides a framework through which nonpoint source water quality criteria are developed in ecoregions across the country for transfer to Targeted Watersheds within the states. Nonpoint source water quality criteria may be biological, chemical or physical in nature. As mentioned above, few states have developed nonpoint source water quality criteria to provide a measure of successful pollution abatement in Targeted Watersheds. The task is difficult due to the temporal and spatial variability of storm events and the stochastic relationship between polluted runoff and ecosystem degradation. Nonetheless, the development of watershed-specific nonpoint source water quality criteria is crucial for agricultural producers so that water quality amelioration can be accurately gauged subsequent to the implementation of Water Quality Management Plans. Absent such criteria, producers may be subject to excessive pollution-abatement demands and associated costs. Depending on the level of prior pollutant loading and various physical characteristics of the watershed, water quality amelioration may take several years, or even decades, to manifest subsequent to the implementation of appropriate management practices. The development of realistic, watershed-specific nonpoint source water quality criteria can protect agricultural producers from excessive water quality expectations in the face of numerous complex variables.

The *Act* establishes a series of ten National Demonstration Watershed Projects in diverse ecoregions throughout the United States. The Projects provide the EPA Administrator with data on which to base ecoregion-specific nonpoint source water quality criteria. The *Act* requires the Administrator to publish final ecoregion criteria within ten years from the initiation of the process. The criteria are intended for refinement and eventual application by Agricultural Lead Agencies and Water Quality Regulatory Agencies in Targeted Watersheds. Both SCS and the USDA Agricultural Research Service (ARS) are expected to play an active role in this research effort due to the significant expertise these agencies have developed in recent years in the area of agricultural nonpoint source pollution control. ARS physical process models are particularly important for predicting pollutant loadings within Targeted Watersheds both before and after the implementation of improved management practices.

A National Constituency Committee, established in the *Act*, provides oversight and accountability for the National Demonstration Watershed Projects and recommendations to the EPA Administrator concerning Project activities and progress. The NCC is comprised of an equal number of representatives of agricultural producer groups and environmental interest groups, and is chaired by two United States House members and two Senate members. In addition to its oversight role for the National Demonstration Watershed Projects, the NCC provides recommendations to the EPA Administrator during rulemaking to implement CWA reauthorization and a forum for the development of alternative environmental policy for agriculture. One area where the NCC can have significant impact is in recommending measures

to facilitate cooperation between EPA and USDA in Targeted Watersheds. While both agencies have complementary expertise and funding to address agricultural nonpoint source pollution, closer cooperation between the agencies could streamline the provision of crucial resources to producers. Under "planned intervention" in Texas, CWA section 319 funds for agricultural nonpoint source pollution flow from EPA Region VI to TSSWCB via TNRCC, while USDA funding comes down traditional agency channels through ASCS and SCS. Once a watershed is targeted by the state Agricultural Lead Agency, all necessary resources must be available to agricultural producers in a timely manner to allow efficient development and implementation of site-specific plans.

The constituency committee process is an innovative policy-development mechanism employed by TIAER in much of the Institute's work. The constituency committee process is grounded on the premise that effective policy development requires the active participation of stakeholders potentially affected by issues under consideration. As the influence of government bureaucracies and professional lobbyists in the political process has grown, the perspectives of individuals truly affected by policy decisions are often lost. Bureaucracies and lobbyists are pseudo-stakeholders, not directly affected interest groups. Thus, constituency committee members are selected to represent the widest possible range of truly affected interests. Elected government officials chair constituency committee meetings to help insure regular participation by committee members. In the process, these officials receive in-depth briefing on the issues under discussion which can facilitate the development of new legislation based on committee recommendations. Committee members thoroughly discuss the issues at hand in an effort to develop consensus. Issues on which no consensus exists are reported accordingly. Because committee recommendations must withstand close scrutiny from a variety of perspectives, legislation incorporating those recommendations will often enjoy broad support.

Such was the case concerning the implementation of "planned intervention" in Texas. As part of a CWA section 319 project conducted by TIAER in the Upper North Bosque River watershed, TIAER convened a constituency committee comprised of representatives of the area's burgeoning dairy industry, environmental groups and citizens generally concerned about environmental quality within the watershed. At the time, tension was high in the community due to reports attributing water quality degradation and odor to an influx of large dairy operations between 1985-90. After several meetings, the committee recommended that an alternative environmental compliance program be developed for relatively small dairy operations (<250 milking head) not subject to the TNRCC waste discharge permitting process. TIAER published that recommendation in its 1992 Interim Report to the Joint Interim Committee on the Environment, 72nd Texas Legislature. The recommendation was embodied in Senate Bills 502 and 503, both of which *unanimously* passed the Texas House and Senate. "Planned intervention" for all agricultural nonpoint sources of pollution was the result.

Summary

Agriculture is today a salient target for nonpoint source pollution prevention and abatement initiatives. However, the policies, institutions and compliance strategies developed to control point source pollution over the past 25 years are often inappropriate when applied to agricultural

nonpoint source pollution. TIAER has developed a comprehensive, watershed-based institutional framework to facilitate environmental compliance by agricultural producers which is embodied in the proposed *Agricultural Watershed "Planned Intervention" Act of 1994*. The *Act* requires the states to revise their section 319 management programs to designate an Agricultural Lead Agency for agricultural nonpoint source pollution prevention and abatement programs. The Lead Agency, in cooperation with local conservation districts, identifies Targeted Watersheds and smaller Micro-watersheds and assists stakeholders in those Watersheds in developing innovative solutions for local problems. The program is essentially voluntary, with enforcement reserved for "bad actors" through State Water Quality Regulatory Agencies. The diffuse nature of agricultural nonpoint source pollution does not permit facile application of command-and-control strategies. Moreover, the extensive network of USDA farm-services and conservation agencies is well suited to assist state conservation agencies and local conservation districts in taking the lead to control agricultural nonpoint source pollution. The proposed "planned intervention" approach is currently being implemented in Texas. In addition to a "planned intervention" institutional framework, the *Act* provides a national strategy for developing nonpoint source water quality criteria for refinement in state Targeted Watersheds. A National Constituency Committee provides recommendations to the EPA Administrator concerning the national research effort, as well as a policymaking forum for representatives of agricultural and environmental interest groups.

NASULGC National Association of State Universities and Land-Grant Colleges

Impact of Wetlands and Nonpoint Source Pollution Regulations on Agricultural Land

U.S. House of Representatives, Committee on Agriculture
Subcommittee on Environment, Credit and Rural Development
March 23, 1994

Statement of
Dr. Terry L. Nipp
Water Quality and Environmental Policy Project Director,
Experiment Station and Extension Service Committees on Organization and Policy, of the
National Association of State Universities and Land-Grant Colleges

Mr. Chairman, Members of the Subcommittee, I would like to thank you for this opportunity to address the issue of nonpoint source pollution. I am speaking on behalf of the Committees on Organization and Policy of the State Agricultural Experiment Stations and the State Extension Services, of the National Association of State Universities and Land-Grant Colleges (NASULGC).

The Land-Grant universities have been actively involved in addressing water quality and nonpoint source pollution issues for a number of years. Research and extension programs are well underway in the States. As a result of these activities, the State Research and Extension Directors have appointed a "Working Group" of research and extension specialists to follow the policy debates underway regarding nonpoint source pollution and the Clean Water Act. This group of specialists has developed a "Working Paper" on the Clean Water Act, which I would like to submit for the record, with your permission.

In my testimony today, I would like to briefly touch on three issues: (1) the importance of multi-agency cooperation; (2) the need for a rational structure for balancing voluntary and mandatory approaches to protecting water quality; and (3) the roles of state research and extension programs in protecting water quality.

Multi-agency cooperation

Over the past several years, the National Association of State Universities and Land-Grant Colleges (NASULGC) has reorganized its fundamental structure. NASULGC realized that the many social and environmental issues facing us today requires the joint input and insights of the different disciplines and divisions within our universities. A Commission on Food, Environment and Renewable Resources was created to foster communication among the groups within our universities that respectively focus on agriculture, natural resources, marine resources and the environment. A component of this Commission has been meeting regularly with officials

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and staff of the Department of Agriculture (USDA), the Environmental Protection Agency (EPA) and the Department of Interior (DOI), to foster communication and coordination of our respective research and education efforts.

In addition to these discussions with the federal agencies, our state universities have been involved in numerous multi-agency activities. For example, in the mid-west, five "site-evaluation" areas have been established to monitor agricultural chemical movement in large-scale watersheds. These research efforts have been jointly supported by USDA, EPA, U.S. Geological Survey (USGS), and state funds. The State Extension Services have worked jointly with the Soil Conservation Service to develop "Demonstration Projects" and to develop programs in "Hydrologic Unit Areas". State Extension Services have worked with their State agencies to address nonpoint source programs implemented in response to Sec. 319, of the current Clean Water Act.

We have all learned, over the last several years, that no federal or state agency has all of the resources, expertise or staff that will be necessary to address nonpoint source pollution issues. Each agency has a role to play. If the next Clean Water Act is to be successful in addressing nonpoint source pollution, we should build on the successes to date when we recognize the role and harness the resources of USDA, EPA, and DOI. Moreover, the roles and contributions of the States and the universities must be clearly identified. Coordination and integration of our respective efforts is essential.

Balancing voluntary and regulatory approaches

There has been, and there will be, considerable debate over the relative role of "voluntary" and "regulatory" approaches to address nonpoint source pollution. While this debate is necessary and appropriate, it is often frustrating because the participants often seem to "talk past each other." The advantage of the voluntary approach includes maximum flexibility for adopting available technologies to local site-specific conditions, while minimizing the costs to those who cannot or do not need to address a specific pollution concern. Supporters of more regulatory approaches argue that in some cases, the nature of the pollution is so severe that more dramatic intervention is necessary, that producers must be required to take hard-actions that they would not otherwise take.

We would like to introduce into this debate, the possibility of creating a rational framework within which the scale and severity of Clean Water Act requirements are clearly linked to the severity of the nonpoint source pollution problems that exist. In the "Working Paper" that I've submitted for the record, we discuss the idea of creating a "Tierred and Targeted" approach to watershed management. In this paper we make the following points:

- Water quality and nonpoint source pollution issues should be addressed on a watershed basis.
- Watersheds should be classified at three levels:
  - Class I Watersheds are those with no known or anticipated water quality problems. Voluntary education programs to prevent contamination should be pursued.
  - Class II Watersheds are those where measured trend data or knowledge about the local geology and environment suggests high vulnerability to water quality impairment. Current incentive programs should be targeted to these "at-risk" watersheds.

- Class III Watersheds are those where there is measured contamination above acceptable levels. More regulatory epproaches, such as mandatory farm management planning, would be required here.

- Each Class would include the programs of the preceding Class, so voluntary education programs would be available in Class II and Class III, and targeted incentive programs would be available in Class III.

- By using such a classification system, funding resources and programs can be targeted to the areas of greatest need and the regulatory burden is targeted to those specific areas where they are necessary.

The details of this "tierred and targeted" approach are developed in our Working Paper, which has been submitted for the record. The intent of this approach is to move from a debate about general approaches to a discussion about the best combination of programs and approaches that are most relevant for a specific watershed. We believe that there are many elements in the various bills that have been introduced that could be rationally integrated into such a "tierred and targeted" system.

The role of State Research and Extension

State Research and Extension programs are making a dramatic and measurable impact on water quality. This impact is not "hypothetical". We can cite specific examples where nutrient and pesticide loading of ground and surface waters have been significantly reduced. We have been involved in numerous programs and projects. We have worked in partnership with USDA, EPA and DOI. Additionally, a working relationship has been forged with State Departments of Agriculture, Environment and Natural Resources. Because of time, it is not possible to describe our many activities. With your permission, I would like to submit for the record some descriptions of some State Research and Extension programs and some specific examples of the impact of these programs.

Our Working Group on the Clean Water Act is still in the process of reviewing the different bills that have been identified to be of interest to your committee. Some of these bills have been introduced relatively recently, as you know. We would be happy to visit with your staffs in the near future regarding our reactions to specific language. I would like, however, to take a moment to draw attention to several areas where State Research and Extension programs will be essential to the successful implementation of nonpoint source programs.

For years, the State Agriculture Experiment Stations and the State Extension Services have pursued research and education programs in water quality, integrated pest management, and sustainable agriculture. Often, the States have spent 4 to 5 times more than the federal government in addressing these critical areas. Our current programs can be strengthened and improved, but there is a clear and immediate need for increased participation by the federal partner. As well, stronger and more direct linkages between the Land-Grant universities, EPA, and DOI need to be established in the areas of developing the research base and education programs to address nonpoint source pollution.

Research

I can provide for the staff a description of research needs relevant to nonpoint source pollution and water quality. Some specific examples of topical areas that need to be strengthened include: watershed and ecosystems research, farm system research, developing a yield response and environmental impact database, improved soil and tissue testing, developing

environmental indicators, developing affordable and scientifically valid monitoring designs, improved reclamation and reuse, improved water use efficiency, and developing new producer decision-making tools. In addition, it is critical that any programs that require some form of approved "Best Management Plans" or farm management planning be structured in a way that allows for the adoption of new and improved technologies or management practices. It would be immensely counterproductive if a process for approving practices to protect the environment actually slowed down or stopped the adoption of new practices.

Extension

Also, I can provide to staff a description of the education and extension needs relevant to nonpoint source pollution issues. There is a great need to strengthen pesticide and nutrient management education programs, as well as waste management programs. Extension, the Soil Conservation Service (SCS), and the Conservation Districts will need to work carefully together to ensure that there is adequate information and education available to producers, to ensure that they are able to comply with whatever planning requirements are developed. Extension has a critical role in providing education and training to those that may seek certification to make recommendations to farmers and those who will help develop management plans. Extension has numerous programs underway to assist homeowners and gardeners safely use and dispose of agrichemicals, but these programs need to be greatly strengthened. Extension has a number of programs underway to develop "Citizen Monitoring" programs for lakes and streams. These voluntary monitoring programs are proving an exciting and effective approach to protecting water quality. Extension is working with the volunteers to make sure that data are collected in a scientific and credible fashion. These programs should serve as models for the careful design and implementation of volunteer programs.

Cooperative State Research and Education Service

In closing, I would like to draw attention to one possible impact of the proposed reorganization of USDA. At this time, both the Senate bill and the House Subcommittee bill propose the creation of a new structure for science and education programs within USDA. Both bills create a Cooperative State Research and Education Service to build a federal-state partnership with the research and extension capacities at the universities. The National Association of Universities and Land-Grant Colleges wholeheartedly endorses the creation of this new Service, specifically as it is defined in the House language.

The relevance of this new structure to the current discussion about nonpoint source pollution, is that this new Service should be utilized as a conduit for all federal agencies to access the expertise and resources of the universities. The SCS, EPA, USGS, and other agencies may certainly work directly with individual universities. However if they need assistance in locating specific expertise, if they need to establish a research project, or if they need to develop education materials to be delivered at the county level, then this new Service should be structured to facilitate their access to the university community. In the past, critical research and education programs have not been developed because the needs of one agency have not corresponded with the *priorities* or *mechanisms* of another agency. It is time to enhance our federal-state partnership. This partnership will be essential to the delivery of critical research and education programs that are necessary to address the challenges of nonpoint source pollution; and most importantly to protect of our nation's water resources.

(Attachments follow:)

APPENDIX I

AGRICULTURAL WATER QUALITY PROGRAM POLICY CONSIDERATIONS

ECOP/ESCOP Working Group on Water Quality and the Clean Water Act

Congress, in dealing with the Coastal Zone Management Act and Amendments and the Clean Water Act reauthorization, has placed increased attention on nonpoint source pollution. This paper focuses on agricultural nonpoint source pollution prevention and control, agency responsibilities and roles considered appropriate for Land-Grant Universities. A structure for integrating voluntary, incentive-based and regulatory approaches will be proposed, in keeping with the Administration's commitment to use voluntary programs to the extent possible, but applying regulatory programs where necessary (Browner, 1993). The focus of the paper is on agricultural sources of nonpoint source pollution; however, the issues and the proposals that are made are equally relevant to most nonagricultural sources of nonpoint source pollution. Similarly, the issues and the proposals made here are relevant to both rural and urban nonpoint source discussions.

The goal of water quality programs should be to assure that agricultural and forestry production practices and related activities maintain and improve the quality of surface and ground water resources. Policies should be carefully planned and implemented to provide adequate incentives and encouragement to bring about the adoption of appropriate management practices to prevent pollution and to discourage practices which cause resource deterioration. Producers must be dealt with in a fair and equitable manner.

Fundamental Principles

General Water Quality Considerations

- Prevention of pollution at the source should be the primary focus of public and private agricultural water quality programs. Remediation of impaired water is extremely expensive, inefficient and impractical (Water Quality 2000, 1993).

- Problems that affect ground and surface water are generally inseparable. Efforts to address water pollution problems must take into account the entire hydrologic cycle (Water Quality 2000, 1993). Recommended land management practices should be based on economic, social and broad ecological considerations.

- Agricultural pollution problems are site-specific in nature and require site-specific and practice-specific solutions for successful prevention and mitigation tailored to the farmer's capabilities.

- Agricultural point and nonpoint source pollution problems should be addressed concurrently where both types of sources are present on a specific site or within a priority (targeted) watershed.

- Water quality improvement protection programs are most effective when targeted to address entire watersheds or hydrologic units, even though practice implementation is site specific.

- Management considerations for both water quality and water quantity are closely interconnected and both must be considered in comprehensive water quality protection.

- Water quality and other water resource values reflect land uses and land cover in a watershed.

- Water quality problems and improvements can best be documented through water quality monitoring over a period of years.

- Nonpoint source pollution prevention presents a great challenge to society. Programs must be developed with full recognition of the complexity of the interactions in the hydrologic system and within ecosystems. While there is much that can and should be done immediately, it will be critical to expand the knowledge base about these systems through research and data collection. There will be a great need for increased training and education to develop the judgement and expertise that will be needed to properly manage address nonpoint source problems.

Federal, State and Local Governmental Responsibilities

A number of federal agencies have important roles in addressing water quality issues. Resources and capabilities of each of these agencies need to be utilized, coordinated, integrated and directed. In addition to various federal agency inter-relationships, the issue of coordination is further complicated by the fact that state governments have primary responsibilities for many areas of water supply and quality protection within their boundaries.

State governments have assisted in the development of a number of model programs to protect water quality. In the areas of research and extension, states appropriate several times the amount of money that they receive from the federal government. Most states are assuming a strong role in water quality protection and allocation programs. There are also regional and local programs, including river basin authorities, that have jurisdictions within and across state lines. Any new legislation should allow for dynamic interactions among the federal government, regional structures, state programs and local entities, so that national investments are clearly integrated and coupled with those of state and local governments to create a synergism to effectively deal with the problems that no level of government alone can solve (Water Quality 2000, 1993). Successful approaches to water quality programs will involve the following considerations:

- Program integration and coordination must be conducted at several levels:

    1. Overall coordination of policies must occur among the several agencies within a common framework.

2. Program management coordination requires regular communications among program managers of the several water quality management agencies.

3. Coordination of technical practice applications to assure consistency of each practice in a location and/or watershed.

4. Administrative coordination among the several budget and accounting offices of the respective agencies, encouraging interagency personnel agreements and other joint programs.

- Programs need to be coordinated "vertically" within agencies as well as "horizontally" between agencies. The federal partners must be able to work with and respect the integrity of regional, state and local program efforts to assure that the programs are being developed in ways that will not duplicate nor interfere with ongoing efforts, but will capture synergistic effects.

- Water quality problems are complex, difficult and expensive to address. No one agency or level of government has adequate resources or expertise to resolve all water quality problems. There is need to identify unique skills of agencies and to deliver the mix of skills that are most appropriate for site-specific solutions of identified water quality problems. This will require cooperative efforts of all agencies and all levels of government.

- It is important to have coordination and integration of multi-agency programs at the point of delivery. Effective coordination is often enhanced if individuals are assigned the specific task of facilitating coordination. Individuals closest to the problems can most effectively elicit support and collaboration of persons in other agencies but need the authority, leadership and resources to support their efforts. They need the empowerment from their respective agency heads to develop and implement their programs in a coordinated way in the field (Gale et. al, 1993).

- Within states, a council could be set-up at the state level to provide for program coordination. Representation from appropriate federal, state and local agencies and organizations would assure appropriate program development and implementation. Within specifically targeted areas, local councils or task forces with appropriate agency representatives, would have responsibilities for guiding on-site multi-agency program implementation.

- When watersheds are shared between two or more states, interstate compacts could be formed to coordinate state programs. State councils, which already exist in many states, could be asked to facilitate coordination and communication with their counterparts in adjacent states.

Existing and Proposed Legislation

Expanding Existing Legislative Mandates

- There are a number of legislative mandates already in place regarding agricultural impacts on water quality. In addition to current Clean Water Act provisions (particularly Sec. 208 and Sec. 319), there are mandates in the 1990 Food, Agriculture, Conservation and Trade Act (FACTA) and the Coastal Zone Management Act of 1972 (CZMA) and Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). Additional legislative mandates should specifically identify and build on existing mandates to minimize confusing and possibly contradictory directives and to enhance ongoing federal and state programs in a logical and systematic manner.

Policy Considerations

- Voluntary, incentive-based research, education, technical and financial assistance programs have proven to be the most cost effective and efficient way to protect water from sediment, pesticides, nutrients and other agricultural pollutants. Voluntary programs and pollution prevention are much less expensive than regulatory programs and pollution clean-up (Contant, et. al, 1993). In general, voluntary approaches have been very effective in correcting problems and preventing resource deterioration. However, there is significant interest in the development of broader regulatory mechanisms to catch "bad actors" and to ensure that all producers are subject to the same standards of environmental stewardship.

- As Congress works on the scope of regulatory programs targeted to agriculture, it is strongly recommended that regulations be carefully targeted only to those specific environments that are at risk and only to those producers and landowners that refuse to adequately cooperate in voluntary efforts in those areas where water quality problems have been identified. It is suggested that a "tiered and targeted" approach be used in dealing with agriculture-related pollution problems. Program design within watershed units should be geared to the levels of contamination and risk within the watershed units. Contamination determinations should be based on clearly defined standards and adequate monitoring and analyses. If contamination is low, then a totally voluntary approach should be applied. As contamination and risk of contamination increase within watershed units, the stringency of required activities also would increase accordingly. Program efforts within a watershed should be based on clear detection from careful monitoring, but when attributed to agriculture, there should also be clear linkages established with specific agricultural practices being conducted in the watershed. Broad-based monitoring will be required to provide sufficient data to appropriately target programs. Trends in pollution amounts and "trigger levels" would be used to select management requirements for individual or groups of producers within the watersheds.

- Many agricultural producers are not causing problems for surface or ground water. Hence, it is undesirable to treat all agricultural producers the same without regard to

the cost of programs and the level of pollution related to their agricultural enterprise. Producers who carefully apply pesticide products following label recommendations, soil test and apply only appropriate amounts of nutrients, properly dispose of chemical containers, protect their soil resources from erosion, and implement other appropriate practices are not likely to be causing water pollution problems. There are some soil resources, however, that are especially vulnerable to either runoff or leaching of chemicals, where even the best producers will have difficulty in selecting and implementing appropriate pollution prevention practices. Those areas should be identified by utilizing environmental monitoring techniques and then should be considered for targeted program efforts by agencies. Also, as is true in any industry there is a small, yet highly visible, number of recalcitrant producers who refuse to change environmentally destructive practices and will not voluntarily implement necessary best management practices. Such situations should receive special attention from governmental agencies. Even though such producers are relatively few in number they create a condition that may reflect poorly on all agricultural operators and in some cases provide them with an unfair competitive advantage.

Policy Recommendations

Following is a description of recommended levels within a "tiered and targeted" concept for watersheds to provide the basis for development of programs to deal with agricultural and other related water quality issues:

Level I Watersheds (No water quality problems detected)

Level I watershed programs would be purely voluntary, with an emphasis on education, technical assistance and applied research regarding appropriate management practices. Broad-scope education and demonstration programs would be carried out in these areas to assure agricultural producer understanding of potentials for any negative effects caused by production practices. Cost-shares could be made available through the existing ACP program or other programs focused on encouraging implementation of desirable practices. Integrated Pest Management (IPM), Integrated Crop Management (ICM) and Integrated Farm Management (IFM) would be made available on a voluntary basis. Sustainable agriculture practices would be stressed through agency programs. As part of the education outreach, the Extension Service, Soil Conservation Service and soil and water conservation districts would work with producers to help them develop voluntary, comprehensive farm management goals and to implement practices that protect water quality and the environment. Such management assistance would target specific problems relevant to the producer's unique environment, while addressing his or her economic and production goals. The mandate for such activities was provided in the 1990 FACTA (Titles XIV and XVI).

Level II Watersheds (moderate pollution problems detected).

Level II programs would be implemented in those watersheds where there is a clear trend of resource deterioration and increasing levels of detectable pollution that have been tied directly to agricultural practices. In level II watersheds the activities included in level I are continued with the additional provision of targeted programs including "incentives" for those producers that implement approved management plans to address identified water quality problems. USDA and state agencies would target increased program activities to these watersheds. Financial assistance also would be provided for soil, manure, plant tissue and some water testing as part of approved management plans.

The Water Quality Incentives Program (WQIP) could be separated from the ACP program and would be used exclusively for targeted, high priority areas with water pollution problems. Financial assistance would be provided from WQIP and other programs, based on the adoption and implementation of program plans developed by producers in conjunction with the Soil Conservation Service, Extension Service and other "certified advisors". This is consistent with the WQIP program mandates. This approach assures that the scarce resources available through WQIP are targeted to those watershed areas with high risks of water contamination. There should be a specified linkage between the availability of funds to individual counties and the severity of their identified water quality problems in the USDA procedures for making financial assistance available. Such a provision would ensure that available resources would be targeted to those farmers in highest risk watershed areas as identified by state 319 priorities. A mechanism could be developed so that individual farmers or ranchers that are in Level I watersheds, but who can demonstrate potential water quality problems at their specific sites, could petition to be eligible for incentive programs.

Certification for pesticide and nutrient applicators could also be required in level II areas, dependent on the nature of the problems that exist in the watershed. Receipt of incentives could be linked to mandatory participation in education programs.

Level III Watersheds (serious pollution detected)

Level III programs would be implemented when levels of pollution exceed established "trigger levels" based on "designated use criteria" such as MCL or HAL recognized limits and where serious trends of resource deterioration are evident from careful environmental monitoring. Level III programs would include the activities underway in the preceding levels including eligibility for WQIP funding in most cases, but additionally would include enforceable practices and policies. Enforcement actions would be site specific and not blanketed across the watershed. Implementation of approved management plans would be required to maintain eligibility to receive federal support benefits and to avoid disincentives or penalties. Thus, producers already in compliance would not be adversely impacted even though they are located in a

Level III watershed. Appropriate implementation of best management practices would be required. Level III watersheds would receive highest priority for targeting of agency programs. State water quality agencies and the EPA would focus primary attention on these level III watersheds.

Pollution prevention plans would be required for watersheds in Level III. Participation in education and training programs would be mandatory.

At Level III, pollution prevention plans and recordkeeping, as both voluntary efforts and as mandatory vehicles for compliance with regulations, could provide liability protection for the producer and promote good stewardship of natural resources.

Advantages of the Tiered and Targeted Model

- The "tiered and targeted" approach would build on existing, successful programs and create new linkages and partnerships among local, state and federal agencies as needed to assure water quality goal achievement. Primary funding for levels I and II watersheds would be through USDA agencies for federal funds and through appropriate state agencies at that level. Significant level III watersheds funds could come through EPA and be administered through section 319 programs.

- None of the agencies has the necessary resources to deal with all problems simultaneously; this approach allows for prioritizing agency activities and facilitating coordination.

- Agency personnel and clientele are unaccustomed to tailoring programs to specific geographical areas; this program would mandate the targeting approach.

- There is limited technical expertise available and the best talents of available experts must be applied to the most serious problems.

- Voluntary programs would be administered by USDA and appropriate state agencies that have traditionally managed such programs. However, EPA and state regulatory agency inputs would be built into the overall program and coordination assured.

- Enforcement programs would be administered by those agencies already recognized to have regulatory responsibilities. However, even in level III watersheds, significant USDA educational, technical and financial assistance would be included since not all producers would be subject to the same requirements.

- This approach would also provide a defensible approach to the CZARA program with the proposed mandatory guidelines being applied only to level III watersheds since expenditure of excessive funds to apply programs in areas without identified water quality problems cannot be justified. However, all areas would receive general basic water quality programs of the level I or level II types, as appropriate.

- Programs would be developed to address complete watersheds, so that interacting components of surface and ground water systems would be comprehensively protected.

- The severity of the demands placed on producers to implement practices would be appropriately linked to the severity of the water quality problem to be addressed. It creates a fair allocation of responsibility, while providing assistance to those that happen to be situated in more environmentally sensitive areas. This approach would enhance the credibility of federal agency programs.

- Some agrichemicals may cause problems in some environments, but may be safe and preferred tools in others. Regulation of agrichemicals would be targeted to those specific environments where they have been proven to pose a hazard.

- A rational structure would be provided for integrating and phasing in voluntary and regulatory efforts, based on the severity of the problems that need to be addressed.

- Agricultural producers that are effectively protecting their watersheds would not be penalized by sweeping regulatory requirements that are not relevant to the environment within which they operate.

- Scarce financial resources would be targeted to those areas with the greatest immediate risks, while continuing basic education and assistance for producers resulting in protection of other areas from becoming polluted in the future.

- Areas subject to level III programs could move progressively back through level II to level I as BMP practice effectiveness reduces pollution in the area to lower and lower levels and thus would establish community goals and provide a positive focus for efforts.

- The approach in this program is complementary to sustainable agriculture and other programs of USDA that focus, at least in part, on environmental quality and sustainable production systems. Those efforts and current water quality initiatives contribute directly to the establishment of a foundation for a successful tiered and targeted program.

- This approach would also involve a logical extension of the USGS National Water Quality Assessment Program as a principal component of the water monitoring necessary to allow for informed targeting of efforts.

Implementation Requirements for Tiered and Targeted Programs

- Decisions must be made regarding the exact pollution amounts and trend data which characterize each of the levels. For example, in relation to individual chemicals which have been proven to pose the greatest threats to human health "trigger" levels could be set such as: level I -- < 0.5 MCL with certain trends in pollution data, level II -- 0.5 - 0.75 MCL with certain trends, and level III -- 0.75 MCL and up. Alternative or

additional trigger levels could also be developed, some of which could be based on "ecosystem indicators". There needs to be interaction between the states, USDA and EPA to identify and develop appropriate trigger levels.

- Monitoring data would be critical to the program, including agreements on the number of samples to be taken over what time period to provide definitive data to establish contaminant levels. Additional characterization for watershed areas could include data on contaminant level trends and potentials for pollution to occur such as any significant changes in agrichemical use, increased size or number of confined animal feeding operations in relation to land and soil capabilities and climate, or other pertinent data.

- Committees or commissions should be established at the state and local levels of all agencies, including representation from Land-Grant Universities involved in agricultural pollution prevention programs to facilitate coordination. In addition, technical committees could be established to assist with development of recommendations regarding criteria to define contamination levels, monitoring procedures, best management practices, trend analysis and related program guidance and coordination needs.

- Provisions should be made to periodically reassess the classification of watersheds to provide for upgrading or downgrading as appropriate.

- An expanded program of water quality monitoring and source assessment must be implemented to properly define problems and permit accurate targeting of efforts.

- Federal agencies should coordinate monitoring efforts and establish agreed upon criteria for monitoring data needed to determine levels of contamination. Partnerships between EPA, USDA, and USDI are crucial for maximizing cost effectiveness and avoiding unnecessary duplication or incompatibility of data sets. Efforts coordinated at the federal level will also help meet the needs in states where state agencies do not have the resources to handle monitoring that is necessary. One lead agency in each state could coordinate state monitoring efforts to ensure that the appropriate necessary data is being gathered.

- Monitoring by volunteer groups may provide useful data and indications of water quality; however, state and federal agencies should provide adequate assistance in the design of these programs, as well as insure that there is adequate training and oversight in the programs if the data is to be used for state and federal decisionmaking. Federal agencies should work together to develop broad guidelines for volunteer monitoring. The lead state agency for monitoring in each state would develop specific criteria and training for volunteer monitoring under the federal guidelines and outline how volunteer data would be incorporated with federal and other states' data.

- State regulatory agencies and EPA, in consultation with interagency teams consisting of members from both non-regulatory and regulatory agencies, should be responsible for setting-up and conducting enforcement activities associated with level III watersheds.

However, these efforts should be closely coordinated with on-going USDA and state Extension Service programs.

- Congress and Executive Department agencies should strive to enhance state-level programs rather than building duplicative and even competitive federal programs. State Extension Services and Experiment Stations in most states are recognized and accepted in the agricultural community as the primary technical agencies to provide producers with guidelines, based on research findings, about agricultural production and control of agricultural pollution, particularly from nutrients and pesticides. Better funding for those programs to allow expansion would be much more effective and efficient than building an alternative bureaucracy.

- Funding for programs dealing with level I and level II watersheds should be primarily through USDA with a focus on building state-level instead of federal programs. Funding through ES-USDA to State Extension Services could be used to build basic educational programs for all watersheds. Identification of level II and level III watersheds would provide a rationale and focus for targeting of priority efforts of all agencies. Significant funding for level III watershed efforts should be through both EPA and USDA.

- Funding for these programs should be distributed using a balanced approach. In each state 50 percent of the funds should be directed to a base program with those funds determined by the size or acreage of the state. The other 50 percent should be distributed on the basis of need determined by the extent of water quality problems.

Recommended Changes for Section 319 Program

- Section 319 program limitations in some EPA Regions could be corrected to some extent by setting of appropriate allowable expenses that may be deducted for administrative purposes and by setting-up new mechanisms for transferring funds from the management agencies to the action agencies directly involved in practice implementation. In addition, eligibility requirements for projects funded under Sec. 319 should be reviewed. New approaches to stimulate appropriate practice evaluation and implementation should be developed for Sec. 319 along with careful targeting to level III priority areas. Sec. 319 funds could be allocated on a percentage basis based on the relative contributions of those sources to the State NPS problem.

- A complete re-evaluation is needed of Sec. 319 management and assessment programs and especially identified problem watersheds or "nonattaining" stream segments. The state-level coordinating committee could conduct such an overview and facilitate needed changes. No watershed should be listed as a problem in the Sec. 319 list without adequate monitoring data for characterization and source identification. In addition, BMPs should not be listed as such without adequate supporting data.

- EPA should have an outside critical review of program administration under Sec. 319 to identify factors that facilitate its success in some states, or which hamper it in others.

Inclusion of agencies state wide, including the Land-Grant Universities, could greatly improve the success of the 319 program.

- State NPS coordinating committees could be developed, to be chaired by the lead state management agency representative; with appropriate representation of all local, state and federal agencies and organizations involved in NPS control. The coordinating committee could be charged to make recommendations or decisions about Sec. 319 projects. For example, the committees could make recommendations regarding the prioritization of state project listing to be sent to EPA; this would greatly enhance the credibility of the priorities within the state agencies.

Suggested Roles for Extension and Research

- In general, State Cooperative Extension Services and Experiment Stations do not become directly involved in conducting regulatory programs. Voluntary programs form the basis for effective interactions between Land-Grant Universities and producers. However, State Extension Services routinely work with producers to provide information and guidance to assist them in complying with regulations. Personnel with Land-Grant Universities also routinely serve in technical advisory capacities and as resource contacts for agencies with enforcement responsibilities.

- Extension needs to work with rural and urban communities to address nonpoint source pollution problems, not just the agricultural community alone.

- State Experiment Stations and the Agriculture Research Service, in collaboration with Cooperative Extension, conduct basic and applied research to evaluate effectiveness of BMPs, sustainability of agricultural systems, and relationships of agricultural practices and water quality. These agencies should continue to have leadership for these programs.

- The Extension Service should play a lead role in the development of quality education and training programs, working in collaboration with federal and state agencies and groups. The Extension system has critical delivery networks, education and training programs, and expertise that should be integrated into Clean Water Act program efforts.

- The Extension Service in each state should be responsible for assisting with the development of training programs leading to certification of individuals regarding nutrient and pesticide management planning and applications. These certification efforts are already underway nationally and in most states. This program should include in-depth training about the use of manufactured fertilizers and organic fertilizers such as manures and various biosolids as well as all types of pesticides and other chemicals used in agriculture.

- Extension Service personnel deliver primary technical assistance as well as education to producers and industry personnel regarding nutrient and pesticide management. State

Extension Services and Experiment Stations should provide leadership in establishing chemical and biosolids use levels and procedures to be included in best management practices and for providing leadership for technical as well as educational assistance with regard to nutrient, pesticide, and biosolids use within their state.

- The Extension Service could provide technical training to help increase the pool of technical experts needed to deal with water quality problems.

- State Cooperative Extension Services and Experiment Stations could serve as the core for technical advisory committees to develop, define, and recommend alternative agricultural practices and BMPs for each watershed area.

- Input obtained from the various technical committees, producer organizations, and others could help identify causes of pollution problems, practice deficiencies, and needed research. Such state-level inputs coupled with similar federal-level data could be used to develop priority research agendas with project funding decisions based on such agendas.

- Land-Grant Universities should establish standards for both soil analysis procedures and crop specific nutrient use recommendations appropriate for their state. In conducting these responsibilities, close coordination should be maintained with EPA and other appropriate agencies, as well as other states.

- Land-Grant Universities should develop guidelines for use of animal wastes, sewage sludge and similar materials in nutrient management practices subject to existing regulations and include those guides in expanded educational and training programs.

- Land-Grant Universities should be responsible for providing education and training in support of the program leading to certification of crop advisors and other individuals involved in agricultural pollutant abatement, including those dealing with appropriate utilization of wastes and wastewaters.

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CLEAN WATER

Impact Statement

*Farmstead Assessment System (FARM*A*SYST)*

The Need

When evaluating potential impacts on groundwater by agricultural practices, two areas need to be addressed: field application of agricultural chemicals to produce crops and the activities that are conducted at the farmstead in the vicinity of the drinking water well. Several research and education efforts are under way that will define Best Management Practices in the field.

In a number of water quality surveys, Minnesota farmers indicate that while they think national, state and local water quality problems are evident,a lack of ownership exists at the level of their own farm.

It has been documented, however, that practices which take place around the farmstead well can have a large impact on the drinking water quality at that site. Some practices can result in high risk to groundwater and drinking water supplies while others present low risk. Drinking water is least likely to be contaminated if appropriate management procedures are adopted.

Extension's Response

In cooperation with University of Wisconsin-Extension and the U.S. Environmental Protection Agency a system was developed to provide the individual with accurate firsthand information about how farmstead structures and activities, such as pesticide storage or manure handling, can affect drinking water.

The Farm*A*Syst (Farmstead Assessment System) program consists of a series of 12 worksheets that assess how effectively farmstead practices protect drinking water. The first 10 worksheets deal with specific practices, while the final two cover soils and geologic features and an overall farmstead ranking. Along with the worksheets is a publication that provides 1) suggestions about ways to modify practices, and 2) places to go for additional information and help to address identified problems. The specific focus of this program is the potential effect of farmstead practices and structures on drinking water supplies.

In the fall of 1992, with a 319 water quality grant funded through the Minnesota Pollution Control Agency, a request for proposals (RFP) was sent to county extension clusters. In this RFP, it was stated that clusters were wanted to conduct a set number of assessments through a partnership with soil and water conservation districts and local water planning groups. Each cluster was expected to do 150 assessments. To date, nearly 400 of these assessments have beem reported. Those clusters selected also had to provide evidence of a joint-team approach to carry out the assessments. In addition, the clusters were required to provide a cash match to the project. On the basis of the proposals received, clusters 12, 17 and 18 were selected. These clusters comprise 13 counties in south central and southeast Minnesota.

Following the assessments, an evaluation was conducted to determine usefulness and clarity of the approach, farmer attitudes to water quality problems, major problems encountered and whether anything has been done to address those problems.

As a part of the evaluation, participants were asked about their level of concern regarding the impact of farmstead activities on groundwater, both on their own farm and in the county. Farmers who participated were slightly to moderately concerned about the impact of farmstead activities on groundwater quality. This concern verifies the results of an earlier water quality survey conducted by the Minnesota Extension Service.

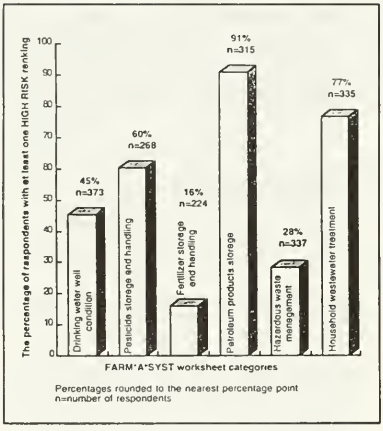
March 1994
FS-6276-S

MINNESOTA EXTENSION SERVICE
UNIVERSITY OF MINNESOTA

The Results

Sixty percent of all assessments conducted in this project indicated one or more farmstead practices as posing a risk to groundwater. The most common areas identifying at least one high risk activity were petroleum products storage, household wastewater treatment, pesticide storage and handling and drinking water well condition (chart below). Information on the chart covers results from the first six worksheets of the series. Data are still being analyzed for those farmers with livestock. The identification of one high risk factor does not indicate an immediate threat to groundwater but does indicate an area where there is room for improvement and/or special management precautions should be followed. In the petroleum products storage area, for example, the factors commonly identified as high risk were the absence of any spill and tank overfill protection and the lack of secondary containment for aboveground tanks.

Accompanying each worksheet used in the initial assessment was a brochure/fact sheet providing more detailed information about specific improper practices that may adversely affect groundwater quality. A series of questions were included to assess the usefulness of these fact sheets. Nearly a third of the respondents did not read the fact sheets. Those that did viewed them positively with the information both understandable and useful. Eight-eight percent indicated that suggestions included in the fact sheets to address the problems found in the worksheets were practical and useful.



Participants were asked to rate the overall usefulness of the program. Most respondents found the system to be moderately useful. Additionally, 88% indicated that they would recommend the program to other farmers.

When asked whether they had completed or planned to implement changes based on the program, 24% said they had already made changes while another 29% said they planned to in the future. Since time from completion of the assessment varied from 3 to 7 months, this is a good indication that the program can have significant impact on changing attitudes and practices.

The Future

The Minnesota Extension Service will continue to offer programs to address the impacts of farmsteads and farming systems on water quality. For additional information on these programs or to obtain sample materials, contact the Water Quality Leadership Team at (612) 625-2282. The Water Quality Leadership Team member responsible for coordinating information on FARM*A*SYST systems is:

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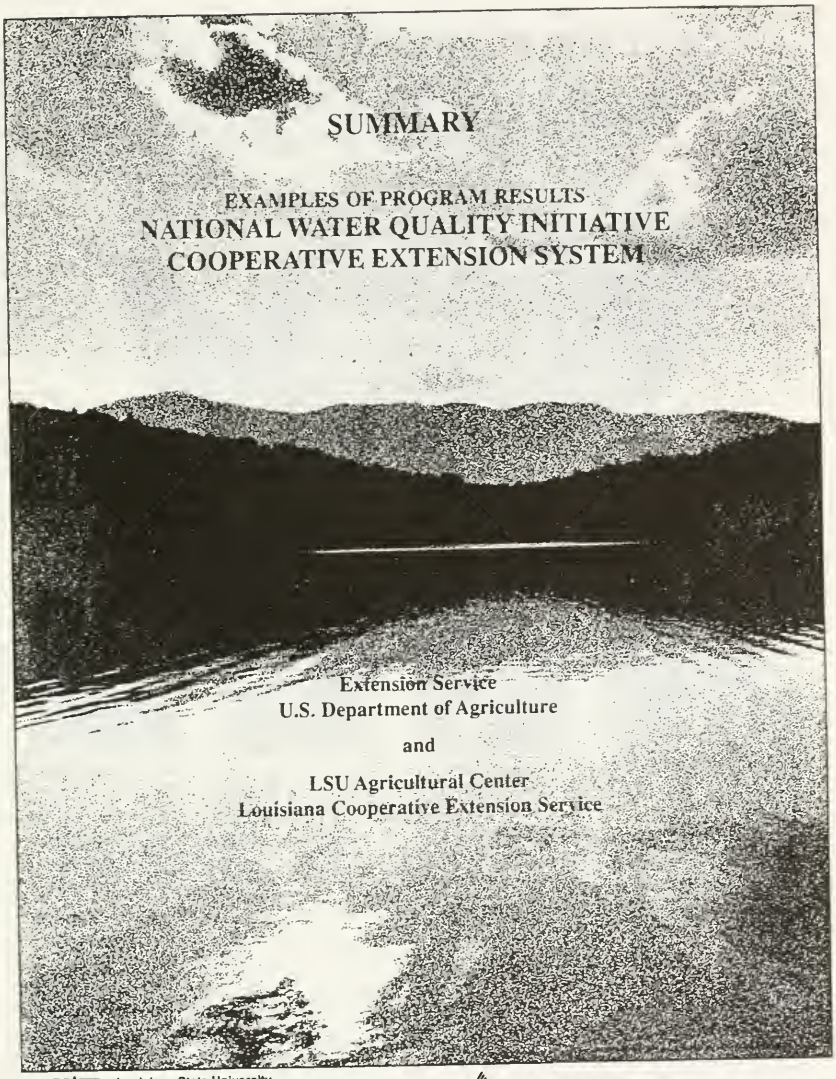
Also contributing to this *Impact Statement* were Fred Bergsrud, Water Quality Coordinator, and Teresa Ahles, former graduate research assistant, VoTech Education.

Printed on recycled paper containing 10% postconsumer waste.
Produced by the Educational Development System, Minnesota Extension Service.



Louisiana State University
Agricultural Center
Louisiana Cooperative Extension Service

The Cooperative Extension System

(The complete report is held in the committee files.)

Protecting Rural America's Water

FARM* A* SYST

(The complete report is held in the committee files.)

TESTIMONY

by
Norman A. Berg, Washington Representative
Soil and Water Conservation Society

before the
Subcommittee on Environment, Credit, and Rural Development
Agriculture Committee
United State House of Representatives

March 23, 1994

Dear Mr. Chairman and members of the subcommittee:

On behalf of the Soil and Water Conservation Society (SWCS), I welcome this opportunity to share with you some thoughts on water quality improvement and wetland protection issues, particularly the control of nonpoint-source water pollution. SWCS is an international organization of 11,000 professionals in natural resources management who advocate the conservation of soil, water, and related natural resources. We will have vigorously pursued this mission for 50 years, come 1995.

Public discussion of nonpoint-source water pollution problems and their solution is, by no means, new. Secretary of Agriculture Ezra Taft Benson, in the foreword to the 1955 yearbook of agriculture, which was titled Water, wrote: "I have little need to remind you that water has become one of our major national concerns. Farmers know only too well the hazards of pollution, and the deficiencies of good water for house, stock, gardens, and crops. They've suffered the fury of floods, of droughts, and the worries of soil erosion. Losses in life, security, productivity, and money have been great."

In 1972, I was asked by officials of the International Joint Commission (IJC) to co-chair, with a Canadian colleague, a reference group that examined the impacts of various land uses, including agriculture, on water quality in the Great Lakes system. Our 1978 report to the IJC highlighted control of nonpoint sources of pollution as a basinwide problem needing much higher priority.

In 1985, as the Congress was about to enact the Food Security Act with its innovative Conservation Title, a national conference was held on nonpoint-source pollution. That conference sought to bring together those from agriculture, forestry, mining, construction, and other sectors of our economy that either were considered as contributing to the problem or wanting to solve it.

Then, in 1988, more than 80 public agencies and private organizations created the Water Quality 2000 initiative, a four-phase effort to develop an integrated national policy on surface water and groundwater quality. Numerous meetings and special studies resulted in a report, A National Water Agenda for the 21st Century. Controlling runoff from rural and urban land was among the 12 challenges identified in the report, which also suggested that water quality and quantity problems both be planned and managed on a watershed basis.

So after what in reality has been decades of study, discussion, and debate, we have come to a decision point in 1994. You have before you several proposals seeking to reauthorize the Clean Water Act and addressing a number of related issues, including wetland protection and comprehensive site-specific planning. A variety of new policy and program approaches are proposed, and nonpoint sources of pollution from agriculture clearly are among the problems targeted. Consensus most assuredly exists to do something about the problem, so we urge the Congress to act. In so doing, our hope is that the Congress will encourage the nation's farmers to adopt more sustainable agricultural production systems--systems that are not only practical and profitable, but more in harmony with our natural environment as well.

Our nation needs an effective nonpoint-source pollution control program that (a) looks at and deals with pollution control on a watershed basis; (b) uses incentive-based programs to the extent possible to gain voluntary compliance; and (c) then, after a time, mandates pollution control as a means of dealing with those land owners and operators who fail to respond to the voluntary, incentive-based measures. Improved water quality monitoring is also essential to measure progress.

Tough questions will have to be answered by you and your colleagues as you progress through your decision-making: What watersheds should be targeted and how? What performance standards should be applied? Who should bear the costs of compliance? What time horizon is appropriate to allow for voluntary compliance before action is mandated?

In recent months, SWCS has adopted three official policy positions that bear significantly on the nonpoint-source water pollution control issue in general and on several of the aforementioned questions more specifically. One is a statement on wetlands protection. Another sets forth some guiding principles for dealing with nonpoint-source pollution specifically. The third relates to what uses might be made of the 36.5 million acres of environmentally fragile cropland now enrolled in the Conservation Reserve Program (CRP). The possible conversion of those CRP acres back to crop production from their present soil- and water-conserving cover of grass and trees could have important negative consequences for water quality and wetland protection in many regions of the country. Some of the acres can be adequately treated to ensure their protection while in crop production, but many other acres in the CRP should never be farmed intensively again because of their environmental sensitivity or because of their strategic location as buffers on the landscape.

With your permission, we are offering copies of the three policy statements as part of our testimony.

One final note: Land and water are integral components of our natural world. They cannot be used or managed in isolation of one another. What affects land affects water and vice versa. On that premise, then, we would commend to your attention the recently published report from the National Academy of Science, Soil and Water Quality: An Agenda for Agriculture. This report represents a significant point of departure for this and future discussion and debate over how to restore the integrity of the land and water resources on which we and our economic system depend.

SWCS stands ready to assist you and your work in any way that you may deem appropriate.

Thank you!

A National Nonpoint-Source Water Pollution Control Initiative

Guiding Principles

Pending reauthorization of the Federal Water Pollution Control Act of 1972, commonly referred to as the Clean Water Act, represents an opportunity for the nation to deal effectively with nonpoint-source water pollution as a means of ensuring public health, safety, and welfare. Water pollution control laws heretofore have focused primarily on point sources of pollution, and the nation has enjoyed a measure of success in addressing those so-called end-of-pipe sources of contamination. Success has been much more limited in dealing with diffuse sources of pollution that originate on agricultural, urban, forest, and other land. In fact, agriculture today is considered the single greatest source of water pollution in many regions of the country. Major agricultural pollutants include sediments from soil erosion, nutrients from fertilizers and livestock wastes, pesticides, and salts in irrigation return flows.

The Soil and Water Conservation Society believes the Congress, in reauthorizing the Clean Water Act, should deal more comprehensively with nonpoint sources of pollution than it has in previous versions of the law. Addressing the nonpoint-source pollution problem effectively and efficiently could be among the most critical steps taken in this nation's attempt to achieve sustainability in the use of agricultural and other land. SWCS thus offers the following principles to guide policymakers in their deliberations on the Clean Water Act:

- All important sources of nonpoint pollution--agricultural and otherwise--should be dealt with in the reauthorization of the Clean Water Act.

- A watershed-based approach to the pollution control effort should be employed that accounts for all sources of pollution--point and nonpoint--in a watershed and that recognizes the interaction of surface water and groundwater resources within that hydrologic unit.

- A national nonpoint-source pollution control initiative should be implemented to the extent possible through state and local governments, with federal financial assistance, guidance, and oversight.

- A comprehensive, ongoing national water quality monitoring program is essential to any national nonpoint-source pollution control effort--to document existing

water quality problems and thereby identify those watersheds and aquifers with impaired water resources and to establish trends in water quality. Physical, chemical, and biological indicators of water quality should be monitored.

- Because financial resources will likely be limited, the nonpoint initiative should be applied on a targeted watershed basis, with those watersheds having the most impared or especially valuable water resources receiving treatment priority. A timetable should be established for treating those watersheds with the most degraded water resources and all other watersheds requiring treatment to achieve the nation's water quality goals. Resources for planning or treatment should be allocated to those watersheds documented as having inconsequential pollution from nonpoint sources only if an imminent danger exists to water resources.

- A period of up to five years should be allowed following completion of plans for farmers and other land owners and managers to respond incrementally and in a voluntary fashion to the new nonpoint-source pollution control mandate. Cost-sharing or other financial incentives and educational programs should generally be made available to those who must implement water quality plans through federal and/or state programs, such as the U.S. Environmental Protection Agency's Section 319 program and the U.S. Department of Agriculture's water quality programs.

- The law should provide for effective enforcement measures to be triggered if the period for voluntary action passes and progress has been insufficient toward achieving water quality goals.

- Comprehensive natural resource management plans should be required for all farms and other land units identified as contributing to pollution problems within those watersheds with impaired or especially valuable water resources. Plans should be prepared first for those farms and other land units contributing the most to pollution problems, and all plans should be integrated with all other natural resource management plans required of farmers and other land owners and managers. The plans should be filed with, or certified by, an agency of USDA or its representative at the state or local level (state agency, conservation district, etc.). That single filing or certification process should constitute compliance with all applicable federal natural resource management requirements.

- Performance-based outcomes should be used in determining the success of the nonpoint-source pollution control effort.

- Any wetland protection measure included in the reauthorized Clean Water Act should provide for a more workable and effective policy than has been the case in the past. The law should clarify agency administrative responsibilities among Interior, EPA, U.S. Army Corps of Engineers, and USDA; it should place authority for making all wetland determinations within USDA's Soil Conservation Service, as the President has announced; it should establish an appeals process for farmers and other land owners and managers who feel aggrieved by a wetland

determination; and it should provide for the use of an equivalent definition of "wetland" by all federal agencies, even if the establishment of such a definition must await completion of the study of wetlands now underway at the National Academy of Science.

- A national nonpoint-source pollution control program will require a well-trained workforce within USDA and at state and local government levels, with sufficient monetary resources to assist in the development and implementation of water quality plans. Any responsibilities associated with wetland protection included in the reauthorized act will add to these workforce, training, and funding needs.

- Reform of federal farm commodity programs should be pursued to determine how it might contribute to the achievement of national water quality goals. Programs that encourage more sustainable use of land resources, not unlike the Conservation Reserve Program, conservation compliance, and other policies included in the 1985 and 1990 farm bills, for example, could significantly aid national water quality improvement efforts.

- An aggressive, coordinated research and extension program must strive to improve understanding of the important cause-and-effect relationships regarding nonpoint-source water quality problems and seek new solutions to those problems. Research will also be needed to evaluate further questions of risk regarding human and environmental health.

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Adopted by the SWCS Board of Directors on December 16, 1993

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Future Use of Conservation Reserve Program Acres

POLICY POSITION

ISSUE

What is the future of the Conservation Reserve Program (CRP) as an environmentally, economically, sociologically, and politically acceptable natural resources conservation program, and more specifically, what uses will be made of the 36.5 million enrolled acres after CRP contracts expire?

BACKGROUND

A broad spectrum of environmental and agricultural interests joined forces to craft the Conservation Title of the 1985 Food Security Act, which included the Conservation Reserve Program (CRP). The CRP is a voluntary program designed to encourage landowners to retire highly erodible and other environmentally fragile land from crop production for 10 years. In return, participating farmers receive an annual rental payment plus cost-sharing for establishment of a permanent, soil-conserving cover of grass, trees, and shrubs on the enrolled acres. Program changes in the Food, Agriculture, Conservation and Trade Act of 1990 sought to target enrollments to water quality and related environmental problems through such measures as partial-field enrollments and stronger incentives for planting trees and native grasses.

From the outset, the CRP was a multiple-objective program. A major impetus for the program initially was the need to help reduce surplus agricultural commodity supplies that were lowering food and feed grain prices and increasing the federal government's farm program costs. The program was also designed to provide other important environmental benefits, including soil erosion control, improved water quality, wildlife habitat enhancement, and increased recreational opportunities.

Since 1985, 36.5 million acres—about eight percent of all U.S. cropland—have been enrolled in the CRP at an average rental rate of $50 per acre. The original enrollment target was 40 million to 45 million acres. Program achievements include an estimated 22 percent reduction in soil erosion on U.S. cropland, compared with conditions existing prior to the CRP, and dramatic improvements in wildlife habitat for many species, including game and nongame birds and mammals as well as reptiles. Problems associated with the program, such as upward pressure on land rents, reduced sales of farm products, and fewer opportunities for beginning farmers, occurred in some areas where signups approached, reached, or even exceeded the 25 percent county cropland enrollment cap.

While some perceive the costs of the CRP as enormous, the true costs and benefits are still not well known. The direct costs to the government for the 36.5 million acres now enrolled are estimated to be $19.2 billion over the life of the contracts. This estimate excludes administrative costs, which have not been assessed. Nor does it reflect savings in annual commodity price and income support programs that result from CRP enrollment. A 1990 estimate by the U.S. Department of Agriculture's Economic Research Service put the then-present value of the CRP's environmental benefits in a range between $6 billion and $13.6 billion over the life of the contracts.

Clearly, the CRP has been valuable in protecting soil productivity, reducing sediment damage, providing an emergency source of forage, reducing federal commodity program costs, and stabilizing land prices. Stable land prices also helped to limit the federal costs of saving farm credit institutions. The total value of such economic benefits are enormous. To date, however, those benefits have not been determined with any degree of precision or accuracy, and they should be.

After CRP contracts expire, a large portion of the enrolled acres are expected to revert to cereal, row-crop, and forage production. The impacts on land rents and market prices for commodities and livestock will likely be negative. Future use of CRP acres will depend upon economics, first and foremost, along with a number of related factors. Those factors include the compatibility of permanent vegetative cover with existing use of adjacent land, the type of cover established on CRP acres, the desirability and cost of conversion from cereal-crop production to grazing-based enterprises, the degree of isolation for various tracts, absentee ownership, and even the potential for lease hunting in an area.

Although it remains too early to predict accurately the economic and budgetary conditions that will exist when the first CRP contracts begin to expire in 1995, farmers, ranchers, and others have expressed real reasons for concern about the program's future generally and, more specifically, about the natural resource implications and financial costs associated with the possible return of many CRP acres to intensified uses. Among the acres enrolled in the program is highly productive land on which soil erosion can be controlled relatively easily. There is also environmentally sensitive land, including some restored wetlands and riparian corridors. If returned to production, most CRP land would be subject to the federal conservation compliance policy, which requires the implementation of an approved conservation farm plan by December 31, 1994, to maintain eligibility for federal farm program benefits. Effective enforcement of the conservation compliance policy will thus be necessary to maintain acceptable levels of natural resource protection on those CRP acres returned to crop production.

POSITION

Given experience with the CRP to date and looking ahead at how the program or a new version of it can become an essential component of an integrated farm program that simultaneously meets the nation's needs for agricultural production, farm profitability, and environmental protection, the Soil and Water Conservation Society adopts the following policy position:

- In general, the CRP has proved to be a popular and, in most cases, a sound natural resource conservation program, and it needs to be extended, perhaps in modified form, well beyond the present 10-year contract period. Moreover, it should become a conservation program, first and foremost, not an agricultural commodity supply management program. To get the most conservation "bang for the buck," acreage and payment adjustments must be based on a more accurate assessment of the land's productive capability and environmental values. Natural resource inventories that have been conducted in recent years can be used as a guide in making such an assessment.

- The permanent vegetative cover now established on the most highly erodible CRP acres, as determined by the U.S. Department of Agriculture's soil erodibility index (EI), should be retained and maintained. Selected cropland acres that perform critical environmental functions—riparian corridors, buffer strips along streams, habitats for threatened or endangered wildlife species, and the like—should be given high priority for continued enrollment. Land not now in the CRP that is recognized as environmentally critical should be targeted for future enrollment. This includes cropland in landscape positions that are critical to managing overland stormflow and to protecting the quality of surface water and groundwater resources alike. Restored wetlands now enrolled in the CRP should be given special consideration for federal purchase of a long-term or permanent easement under the Wetland Reserve Program (WRP).

- The return of any CRP land to agricultural production must be subject to an appropriate conservation compliance plan that minimizes the future negative environmental impacts of farming. This assumes, of course, that the farmer is a federal farm program participant.

- Production-base acres now associated with each individual parcel of land should be transferable from the highly erodible or otherwise environmentally sensitive acres in the CRP to other acreages, allowing production to occur on a farm's "better" acres and encouraging the more fragile acres to be set aside. CRP acres should be allowed to satisfy set-aside acreage requirements. Provisions of this nature could lower the annual cost of the CRP and encourage the more environmentally fragile acres to remain or be enrolled in the CRP.

- Faced in the short term with a declining need for additional cropland beyond what is now available, it appears reasonable to consider using long-term or permanent easements, similar to those being developed under the WRP, to protect specific parcels of land that are identified as critical to solving major environmental problems. Ownership and restricted use of the acres would remain with the landowner, as determined by the easement plan of operation.

- Some economic use of less environmentally sensitive land now enrolled in the CRP, haying and grazing, as an example, should be allowed in return for reduced rental payments. The savings to the federal treasury therefrom should be directed to new enrollments of high-priority acreage. Any partial uses of CRP tracts that are allowed must be in accordance with an appropriate conservation plan in order to protect society's investment in conservation.

- State interagency committees, provided for in the Food, Agriculture, Conservation and Trade Act of 1990, should be assembled and used to help guide decision-making on the CRP and other farm conservation initiatives. One important responsibility for these committees to assume is that of setting priorities for CRP enrollments in the different states, or in regions within a state, to ensure that the multiple goals of the program are being achieved. The committees could exercise oversight authority as well, over constraints on the management of CRP acres (weed control, mowing, etc.), for example, and choice of cover crops planted. These technical committees must reach out beyond governmental agencies to involve representatives from other public- and private-sector interest groups that have a stake in the CRP.

- Historically, plant and animal communities evolved under the influence of such natural impacts as grazing, occasional haying, fire, and climatic fluctuations. Grazing and fire are important for the long-term health and stability of many ecosystems, whether natural or reconstructed (CRP). In order for reconstructed ecosystems to reach their potential and become "more natural," a combination of the aforementioned treatments should be applied at appropriate times. The treatments should be part of a prescribed management plan, conducted without penalty to the CRP contract-holder.

- Research and demonstration projects that allow for local input are needed to test the feasibility of new and innovative farming technologies and management strategies that will minimize undesirable or destructive impacts on fragile land. Projects might include, for example, pilot programs to trade grazing rights between public and private land. Information gained from such programs will help form the basis for sustainable agricultural enterprises that adequately protect the environment.

- In the Great Plains and perhaps elsewhere, the possibility of forming grazing and wildlife cooperatives needs to be pursued. The grazing associations formed after enactment of the Taylor Grazing Act of 1934 represent potential working models. Such associations now operate on both private and public land in the West. They do so successfully by developing large blocks of land with intermingled ownerships as management units. The management units are controlled by the permittees, all of whom

are members of the association. Laws and by-laws, elected board members, and advisory committees determine carrying capacities, individual allocations, rangeland improvements, game and nongame wildlife enterprises, appropriate expenditures, profits, and best management practices.

- Longer term protection and extension of CRP's environmental benefits need not be the sole responsibility of the federal government. State and local governments and private organizations may actively seek to protect and extend certain benefits, critical wildlife habitats, for example.

- The lasting contribution of the CRP to the nation's natural resource base will occur on those acres where long-term, alternative, low-intensity land uses are instituted. Such activities include timber production, controlled grazing, and fee hunting. More emphasis must be placed on the CRP as a transitional opportunity for landowners and as an educational window for numerous federal, state, and local government agencies; private organizations; and academic institutions. At the same time, policymakers, program administrators, and the general public are also necessary targets for outreach and education.

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Adopted by the SWCS Board of Directors on November 6, 1993

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Wetland Conservation

POLICY POSITION

ISSUE

How to conserve wetlands and the important public values they provide.

BACKGROUND

Healthy, properly functioning wetlands contribute to people's environmental well-being in many ways. They help to protect and improve surface water and groundwater quality, provide valuable habitat for plants and animals, control flooding, prevent soil erosion, and provide aesthetic features and recreation. Wetlands also possess important historical values, and they act as buffers between our water supplies and our developed world of roads, fields, and homes.

Wetlands are highly diverse in nature. They encompass a variety of vegetated aquatic ecosystems, such as bogs, marshes, swamps, playas, and prairie potholes. Each has unique values that vary in quality and quantity. Many wetlands possess irreplaceable ecological and social values; some are among the most productive natural areas in the world. Others possess values of little importance to natural systems or society.

Because many wetlands are so important to the future of humankind, federal, state/provincial, and local governments have enacted laws to protect these natural areas. By protecting or minimizing damage to those wetlands that remain and by restoring wetlands that have been destroyed or damaged, governments are attempting to protect these valuable natural assets and the important values they represent.

Some efforts to protect and restore wetlands create confusion, resentment, and resistance among some landowners, land managers, developers, and others who view conservation laws and regulations as barriers to economic growth or unwarranted limitations on property rights. Fear and ignorance of laws and regulations also complicate administration of wetland protection and restoration programs, as do unclear, inconsistent, and ill-defined wetland policies.

POSITION

Given this background and the diversity of opinion that exists with respect to wetland protection and restoration efforts, the Soil and Water Conservation Society (SWCS) has adopted the following position:

- *Wetlands are valuable and, in many cases, irreplaceable ecosystems.* SWCS is committed to the protection of those ecologically and socially important

wetlands remaining in North America for the benefit of present and future generations.

Definition and Delineation of Wetlands

• *The definition of what is a wetland and the criteria used in delineating wetland areas must be scientifically valid and workable, and the definition and criteria alike should recognize regional variations in the characteristics that define wetlands.* SWCS recommends, therefore, that wetlands be defined as areas having a predominance of hydric soils that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.

Wetlands possess three essential characteristics: (1) hydrophytic vegetation; (2) hydric soils; and (3) wetland hydrology, which is the fundamental physical condition necessary for the development and continued existence of a wetland. Wetland hydrology is generally difficult to measure; however, hydrophytic vegetation and hydric soils, as expressions of hydrology, usually are more amenable to field observation and qualitative description. Wetland hydrology may be present for only a short period of time during the year in some wetlands, such as playas and prairie potholes.

• *Federal government should not legislate specific wetland delineation criteria, but rather establish a procedure for administering agencies to develop regional delineation guidelines in consultation with states/provinces and an independent scientific advisory committee.* It follows then that the Federal Manual for Delineating and Identifying Wetlands in the United States should provide for a scientifically valid delineation of wetlands based on regional variations in wetland characteristics.

• *Agencies at all levels of government must use equivalent definitions of wetlands for regulatory purposes.* This will require that agency personnel involved in administering wetland protection laws and regulations receive appropriate training for applying interdisciplinary field-delineation techniques.

Regulatory Programs and Their Scope

• *Section 404 of the United States Clean Water Act should be amended to make this regulatory program more workable.* The scope of this program and associated state programs should be expanded to address explicitly the following activities in wetlands: dredging, filling, removal or excavation of soils, drainage or flooding, and destruction of plant life or habitat.

• *Regulations should be restricted in their application to artificial and constructed wetlands.* Specifically, (a) artificially induced wetlands, such as those resulting from and incidental to ongoing agricultural practices, should not be used for mitigation of wetland loss and should not be included in the United States wetland base; (b) artificial wetlands that are created or constructed and maintained solely for resource management purposes, such as wastewater treatment, stormwater abatement, or wildlife management, should be exempt from wetlands regulations so long as they are used and managed for their intended purpose; and (c) wetland exemption criteria

must be consistent between and among federal regulatory programs (for example, the Clean Water Act and the swampbuster policy in the United States).

Mitigation Policy

- *Mitigation through wetland restoration or creation must be an essential component of wetlands management.* The United States Congress, therefore, should include a statement of mitigation policy in an amendment to the Clean Water Act.

- *Mitigation banking is a useful tool,* provided that (a) mitigation banks are used strictly to mitigate unavoidable wetland impacts or losses, (b) impacts are mitigated on-site when possible, (c) banks are located in the same watershed or ecological region as the wetland impacts they mitigate, and (d) banks provide in-kind replacement of wetland functions and values lost.

Nonregulatory Approaches

- *Any national wetland protection strategy must involve nonregulatory programs as essential complements to the regulatory program.* SWCS thus supports continued and added emphasis on natural resource management planning, programs to promote wetlands restoration and creation, development of tax incentives to encourage wetland protection, public acquisition of wetlands, public education and management outreach programs, wetlands mapping and tracking systems, and efforts to reduce incentives that lead to wetland conversion.

- *Federal government should conduct a thorough assessment to identify key federal programs causing wetland conversion or degradation.*

- *States/provinces should identify opportunities to reduce incentives for wetland conversion or degradation.*

- *Local governments should examine their full range of development controls to identify and modify those that promote wetland conversion or degradation.*

Wetland Restoration and Creation

- *SWCS supports provisions of the North American Waterfowl Management Plan, the Food Security Act of 1985, and the Food, Agriculture, Conservation and Trade Act of 1990 that encourage and financially support wetland protection efforts.* In particular, SWCS encourages the Congress and the president to fund the Wetland Reserve Program to its authorized level.

Public Education

- *Educational programs on the values of wetlands and the purposes of regulatory programs can help increase public support for those programs and the ability to predict the outcome of regulatory decisions.* Federal, state/provincial, and private educational and outreach programs must be expanded.

In Conclusion

SWCS remains committed to working with all levels of government to identify, analyze, and formulate workable policies and programs that will protect North America's wetlands.

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STATEMENT OF

JAY A. LEITCH, PROFESSOR
DEPARTMENT OF AGRICULTURAL ECONOMICS
NORTH DAKOTA STATE UNIVERSITY

Mr. Chairman and Members of the Subcommittee, I am pleased to be here today to address wetlands and water quality issues. I am Jay A. Leitch, professor of agricultural economics at North Dakota State University. I have been there since 1981 as a teacher and researcher in the areas of natural resource economics and policy, government finance, and research philosophy. I have served on OTA's Wetland Advisory Panel, as President of the Society of Wetland Scientists, as Scientific Advisor to the Assistant Secretary of the Army, and as (IPA) Senior Economist in Interior's Office of Policy Analysis.

I have submitted a written statement and a copy of *Wetland Policy Issues* and request they be inserted into the record.

I represent CAST (Council for Agricultural Science and Technology). I chaired the CAST Task Force that wrote *Wetland Policy Issues*. CAST is a coalition of 30 scientific societies devoted to advancing the understanding and use of food and agricultural science and technology in the public interest.

I have been asked to address wetlands and nonpoint pollution.

I intend to make two general points this morning regarding issues that are covered in far more detail in the CAST policy issues report. The first issue regards wetland definition and the second wetland value, both highly relevant to using wetlands to reduce nonpoint pollution.

THE FIRST POINT: "Wetland" is not well enough defined to be included in legislation. After years of struggling among Federal agencies, the National Academy of Sciences is currently attempting to define wetland. The reason for the struggle is that wetland is a concept, like maturity or pornography, and cannot be described by scientists until society determines some ground rules. In other words, wetlands are not out there waiting to be discovered, they exist only in how society chooses to describe them. And, we haven't been able to describe them well enough yet to include reference to wetland in legislation.

Referring to wetland in nonpoint pollution legislation before it is well defined, gives subsequent definers of wetland tremendous influence. The impacts of a definition on rural communities and agriculture can be extremely wide ranging, depending on just how "wet" wetland is defined to be.

In addition, social concepts differ among regions of the country and over time. Thus, including a poorly defined concept, such as wetland, in legislation may mean that the impact will not be consistent geographically and it may change as society's perception of what wetland is changes.

THE SECOND POINT: Generalities about the values of wetlands are not sufficient evidence that all wetlands are valuable for pollution control, nor that any wetland is more valuable than an alternative. Wetlands are frequently touted as having high social values across a broad range of outputs.

There are three parts to this issue. First, when looked at individually, some wetlands do not provide many of the often cited long list of social benefits, or if they do, they do so only at a low or modest level. I am a resource economist and I understand the concept of cumulative impact. I also understand the concept of marginal change. We account for both in our analysis of wetland value.

Second, while wetland may function in such a way as to recharge groundwater, for example, if there is no demand for groundwater in that area, there is no value for that function. Many parts of the upper-Midwest, for example, have alkaline ground water and have responded by developing rural water systems. Even if wetlands recharge ground water in these areas, there is little or no value to that function since the ground water has no value.

Social value requires both an ability and a willingness to pay for something. Having ecological or hydrological function only makes something physically available, that's not enough for economic value.

Thirdly, and most important, is that knowing the value of only one option does not help to make efficient choices. I won't argue that many wetlands have high values, but some have modest values, and many have low values. Without knowing and comparing the values of wetlands to the values of alternative uses of wetlands or other landscapes sacrificed to save wetlands, we can not make the socially correct choices.

Almost everything can be shown to have "value." But we trade off valuable resources every day so we can have outputs that are **MORE** valuable to society. Until we know the opportunity costs of using wetlands to reduce nonpoint pollution, it is only a gamble to say wetlands should be protected because they are "valuable" pollution fighters. Some wetlands, in fact, may contribute to water pollution.

The messages I wish to leave this morning are (1) we need to agree what wetlands are before laws are written to regulate their use; (2) wetlands are not all equally valuable to society, either because they don't all perform useful functions, or because there is no demand for the function; and (3) the correct choices about resources cannot be made without knowing the opportunity costs.

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POSITION STATEMENT

TESTIMONY OF
JOHN F. TARBURTON, SECRETARY
DELAWARE DEPARTMENT OF AGRICULTURE
ON BEHALF OF THE
NATIONAL ASSOCIATION OF STATE DEPARTMENTS OF AGRICULTURE
BEFORE THE
HOUSE AGRICULTURE SUBCOMMITTEE ON
ENVIRONMENT, CREDIT AND RURAL DEVELOPMENT
U.S. HOUSE OF REPRESENTATIVES
MARCH 23, 1993

re: The Impact of Wetlands and Nonpoint Source Pollution Regulations on Agriculture Land

Good morning Mr. Chairman, members of the Subcommittee. I am John F. Tarburton, Secretary of the Delaware Department of Agriculture. I appear before you today on behalf of the National Association of State Departments of Agriculture (NASDA). NASDA the nonprofit association of public officials representing the Commissioners, Secretaries and Directors of Agriculture in the fifty states and the territories of American Samoa, Guam, Puerto Rico, and the Virgin Islands. As the chief state agriculture officials, NASDA's members are keenly aware of the importance of balancing agricultural production and natural resource conservation on their state's and the nation's economy.

As we look at the issue of natural resource protection and specifically water quality improvement, there are three objectives we can all agree upon: 1) We want to protect and enhance our natural resources; 2) We want to ensure that we have a safe, adequate, and affordable food and fiber supply; and 3) We want to achieve these first two goals in a manner that services our economic needs. So the critical question we are compelled to address is not what we want to achieve, but rather how we go about doing it. Farmers and ranchers across this country want to solve the problems with water quality directly attributable to agricultural sources. It is our responsibility as policymakers to provide them with programs, education and training, and financial assistance to accomplish that objective.

We only need to look at the volumes of information featured in every farm and ranch publication during the past few years to recognize that an information explosion on the environment — and specifically on water quality — is taking place out in the country. These environmental articles are not about whether farmers and ranchers should participate in the solution, but rather how they can incorporate conservation practices on their farms that protects water and soil resources.

In 1986 the *Farm Journal* magazine, a major farm publication with a circulation of over three-quarters of a million, printed ten feature articles dealing with agricultural environmental issues. In 1990, the number of environmental feature articles had grown to 65, a 550 percent increase. And that trend is continuing. The significant point here is that they don't write articles unless there is a demand by their readership. Readership surveys indicate farmers and ranchers want more and more information on conservation and environmental issues. It seems apparent from this increase in demand for information that we have begun the first steps in the education process, a process which leads to attitudinal change and ultimately to behavioral change. This demand also points out that farmers and ranchers recognize the principle questions we must all address: What are the best, most effective methods we can use to conserve and improve our nation's water resources?

Below are some guiding principles which should be used to develop programs and policies as we look for solutions to the questions production agriculture faces.

- Natural resources management policy decisions should be driven, not by assertion, but by scientific fact. Science should be used as the foundation of all water quality decisions.

- Farmers and ranchers will respond if they know there is a problem and if they are given reasonable alternatives on how to fix them. The key to the adoption of these new practices is getting the information into the producers hands; assuring them through research that they will work; and showing the adoption will be cost-effective.

- Improving water quality is a process which takes time for results.

- Solutions that come from the bottom up, rather than the top down, are most effective. Education and technical programs should focus on identifying local solutions.

- Regardless of what programs there are in place, nothing happens until the management practices are applied to the land. Below are a few examples of activities which are happening on the landscape as people respond to the nonpoint source question.

We're making significant progress on getting conservation tillage on the ground, some because of conservation compliance and the rest because farmers are learning that it makes good sense. This can have as much impact as anything we can do to improve water quality in our streams and lakes. The concept is simple, keep the water on the land and you reduce the opportunity to move soil and nutrients to the drainage system.

We've begun to understand that animal waste is really not waste, but rather a valuable resource that can be managed and used to improve farm profitability. Precise managements of nutrient content and prescription application is becoming standard operating procedure on farms all across the country.

And with regard to general fertilizer management, we are learning to become very specific in our testing and application — farmers and ranchers are attempting to apply only what is required of a crop for growth in that crop year, and no more. This is especially important with nitrogen, because excess free nitrogen unused by the crop has the potential of moving offsite. Farmers are becoming very sensitive to this issue and recalibrating nitrogen rates accordingly.

NASDA Position on Reauthorization of the Clean Water Act

Reauthorization of the Federal Water Pollution Control Act (commonly known as the Clean Water Act) is an opportunity to review the quality of our nation's water resources, assess our efforts to clean-up impaired waters and prevent potential pollution, and set a course to protect this vital resource. Let me concentrate on the area of nonpoint source (NPS) pollution and agriculture's efforts to prevent such pollution. NASDA recognizes the need to address agricultural nonpoint source pollution which may have adverse effects on the environment and human health. Agricultural operations, along with urban, construction, septic and natural sources, require a comprehensive and coordinated management strategy, much of which is already in place, but in many cases inadequately funded.

In order to reduce complex and diverse NPS pollution, a commitment of time and resources is necessary, similar to the 20-year commitment our country has made to eliminating point source pollution. However, management of this problem will require a different approach than that of point source pollution because, unlike point source pollution, NPS pollution is primarily a weather-related phenomenon that can be managed, but not feasibly eliminated. NPS pollution is caused by the inadvertent discharge of pollutants from a wide variety of society's most essential activities.

The Clean Water Act (CWA) is not alone in protecting America's waters from NPS pollution. Other ongoing programs at the federal, state and local levels must be funded fully, and coordinated with, not superseded by, the CWA. In particular, this includes the soil conservation and water quality provisions of the 1985 and 1990 farm bills and the state groundwater and surface water protection programs of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The CWA reauthorization should not directly or indirectly create a federal water quality law or program which supersedes, abrogates or impairs state water allocation systems and water rights.

Principles of the Clean Water Act

The reauthorized CWA's central focus for NPS management solutions should be reasonable, voluntary, and based on incentives, education and technical assistance. NPS pollution management programs should emphasize the protection of water resources and state-designated water uses, including state-designated agricultural uses, recognizing the importance and needs of individual agricultural producers and other landowners affected by the CWA. This approach emphasizes the use of locally designed and applied, economically feasible, site-specific best management practices which do not infringe on private property rights.

The CWA contains valuable provisions for NPS management embodied in section 319. Although section 319 has been historically underfunded and has been hampered by bureaucratic roadblocks, all states now have approved section 319 assessments and management programs. Amendments to the CWA should continue to focus on the 319 program as the means for states to identify nonpoint sources in critical areas, and to develop management programs to control discharge. Reauthorization of the CWA should provide increased funding and technical support for state management programs and local implementation. Management efforts funded by section 319 should be directed to priority areas based on scientific assessments that identify water bodies with impaired or threatened uses. Priority, as determined by states, should be based on the magnitude of risk to human health, the protection of designated uses, and likelihood of further significant and unreasonable water quality degradation if no action is taken.

The proper management of NPS pollution lies in state and local efforts. As such, states should continue to identify and resolve their priority NPS water problems through administration of section 319 funds. With state oversight and approval, local entities should continue to carry out these NPS programs. State and local programs should provide for a mix of research, development, education and technical and

financial assistance for both planning and implementing actions aimed at achieving state designated uses. Agencies at the federal and state levels should harmonize objectives and coordinate funding for national and regional NPS management programs.

Strategies should be developed on a hydrologic unit, watershed-wide basis using an approach that includes the consideration of both surface and ground water quality. Programs should focus on cost-effective, site specific practices for individual operations with flexibility for implementation. Section 319 management programs on federal lands should be developed and implemented by the specific agency statutorily charged with management of the lands in question, rather than by regulatory authorities independent of that agency.

In order for section 319 to work effectively for agriculture, the U.S. Department of Agriculture must play a lead role in the formulation and communication of technology-based best management practices in agriculture. USDA should assist in coordinating section 319 programs with technology-based conservation measures adopted in the 1985 and 1990 farm acts, FIFRA pesticide regulations, wetlands protection, public lands management, and EPA groundwater policies.

An effective and cost-efficient response to water quality problems requires accurate and reliable information on the source, extent and impact of NPS pollution, as well as the effectiveness, utility and economic feasibility of conservation measures and best management practices. CWA reauthorization should include a strong financial commitment to further research, monitoring and assessment projects. Monitoring should include before and after sampling as well as frequent sampling during storm events and assessment of natural and historic loadings. Scientific research and monitoring projects should follow protocols developed by the U.S. Geological Survey and should be concluded on a watershed basis with local and state input. Representative pilot projects aimed at achieving market based incentives on a watershed or regional level should be encouraged. It is, however, inappropriate to provide the authority for citizen suits against individuals participating in NPS management programs. Moreover, a more prudent use of scarce resources is to provide monetary assistance to states for monitoring activities rather than to voluntary monitoring programs.

Current Efforts to Prevent NPS

The existence of programs at all levels of government to protect water from potential NPS contaminants necessitates development of an effective coordination strategy to avoid conflicts and duplication of efforts. Failure to recognize this need can lead to squandering of limited resources and may result in conflicting programs that may even increase the potential for pollution of ground water while trying to reduce the potential for pollution of surface water (or vice versa).

Approaches to protect water quality can be categorized as nonregulatory/voluntary, regulatory, liability, or comprehensive protection. Many farmers have voluntarily adopted best management practices and other measures that will help protect water from potential pollution. Continued research, education by public and private entities, technical assistance on developing or implementing water quality protection programs, economic incentives, and product stewardship are necessary to increase water resource protection.

Numerous efforts are underway to protect ground and surface water from potential NPS pollution. Among these are programs and legislation at all levels of government, that vary in type and structure. For the record, allow me to highlight a few of the federal, state and local regulatory and voluntary programs which currently exist.

The Coastal Zone Management Act — The original Coastal Zone Management Act (CZMA) was passed in 1972, amended in 1980, and reauthorized in 1990. The lead agencies for implementation of the latest CZMA programs are the Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA).

Section 6217 of the 1990 legislation requires each state with a federally approved CZMA program to develop a "coastal nonpoint pollution control protection program" to implement coastal land use management measures for controlling NPS pollution. The states are able to provide maximum flexibility in establishing the state and local institutional arrangements to accomplish the control of NPS pollution. State programs, however, must be developed and implemented in conformity with national guidelines.

Federal Insecticide, Fungicide, and Rodenticide Act — Under FIFRA, the EPA collects environmental fate data that are used, among other things, to indicate whether a pesticide poses a threat to ground or surface water. Based on such data, the agency may require label directions and precautions to inform the applicator that the pesticide must be used in a manner that prevents water supply contamination.

Also under FIFRA, the EPA may restrict, cancel, or temporarily suspend all or some pesticide uses that pose unreasonable risks to human health or the environment through contamination of water supplies. The agency has proposed a Ground Water Restricted-Use rule that describes the criteria (i.e., a pesticide's tendency to leach) for identifying pesticides for possible restricted-use classification because of ground water concern. After the final rule is promulgated, EPA will initiate reviews to classify up to 30 pesticides as restricted-use chemicals because of their tendencies to leach to ground water. Restrictions may include limiting use to certified applicators.

Safe Drinking Water Act — Under the Safe Drinking Water Act's Public Water Systems Program (PWSP), the EPA regulated six pesticides and nitrate/nitrite in addition to other chemicals and biological contaminants. Under the drinking water regulations announced in January 1991, effective in July 1992, states must adopt new drinking water standards for 33 potential drinking water contaminants including 18 pesticides. The EPA has also developed Health Advisories for about 70 pesticides that are actual or potential ground water contaminants. In addition, EPA implemented new standards of 1 ppm for nitrite and 10 ppm for nitrate/nitrite as nitrogen (N) combined in July 1992.

EPA has established requirements for regular monitoring, public notification of contamination, and specific timeframes for removal of the contamination. Monitoring for the 18 pesticides covered under the new drinking water standards were phased in after July 1992. Such an approach gives states the opportunity to institute watershed and ground water protection measures to keep pesticides out of drinking water. EPA also conducts and enforces drinking water programs in states that do not have primacy or are not enforcing their programs adequately.

Comprehensive Environmental Response, Compensation and Liability Act — Superfund, created in 1980, is an important tool in EPA's response to the nation's hazardous waste problem. Approximately 31,000 hazardous waste sites have been identified. Some of these sites are in rural areas, and sometimes involve contamination of ground and surface water due to improper disposal of septic tank wastes and sludge containing hazardous substances such as PCBs, benzene, and toluene, or wastes from pesticides and fertilizer manufacturers. Estimated costs for cleaning up some of the Superfund sites are very high, running in the millions of dollars.

Toxic Substances Control Act — EPA has broad authority under section 6 of the Toxic Substances Control Act (TSCA) to control manufacturing, processing, distribution in commerce, use or disposal of

a chemical substance or mixture if it "presents or will present an unreasonable risk of injury to health or the environment." Under section 4, EPA may require industry to test a chemical substance or mixture if the agency finds it "may present an unreasonable risk of injury to health or the environment." If the EPA decides that it lacks important information about toxicity or exposure, it can specify what information the industry must provide through additional testing if necessary.

Research on Transport and Transformation of Contaminants — In order to predict the movement of contaminants in the subsurface, and thereby predict potential human and ecological exposure, EPA's Office of Research Development (ORD) maintains a research program in transport and transformation of contaminants. Some of this research is done to predict the leaching behavior of agricultural chemicals. This includes advances in integrating process level information into predictive tools such as the pesticide soils leaching model PRZM, the pesticide ground water leaching model RUSTIC, and the development and application of the comprehensive environmental management model CEEPES to agricultural chemicals. In addition, a new effort is underway to support the Office of Water in determining the sorptive properties of soil as a factor in protecting wellheads from contaminant migration.

EPA has joined with the United States Department of Agriculture (USDA) and the U.S. Geological Service (USGS) in the Midwest Initiative on atrazine. Under a coordinated plan of study drafted in 1989, the three agencies selected the mid-continent soybean and corn-growing region to determine the regional factors affecting the distribution of atrazine, a herbicide of long-standing use, through the environment.

Information Systems for Preventing Ground Water Contamination from Pesticides — Tools exist to locate pesticide problem areas, and develop strategies for use of pesticides on a local level. These tools include models that have been developed to predict the leaching of pesticides to ground water, data that have been collected on soil properties and other relevant environmental factors, and geographical information systems for displaying and analyzing spatial information. These types of tools, however, have not been systematically integrated into a workstation framework of state and local risk management. ORD has initiated research to provide such a framework for states upon which they can develop locally meaningful pesticide management plans. The work will also include field evaluation and modeling schemes. The project is coordinated with related research on the effects of agricultural chemicals on water quality at USGS and USDA, in order to ensure integration of information and dissemination of results.

Methods for Assessing Aquifer Sensitivity to Pesticides — To assist states in assessing ground water vulnerability to pesticides as part of their efforts to develop pesticide management plans, EPA's Office of Ground Water and Drinking Water is preparing a technical assistance document on methods for assessing the natural sensitivity of aquifers to pesticide contamination.

President's Water Quality Initiative — The President's Water Quality Initiative (WQI), established during the Bush Administration, called for a vigorous effort to protect ground and surface water from contamination by agricultural chemicals, commercial fertilizers, and wastes, especially pesticides and nutrients. The WQI is using the combined expertise of USDA, USGS, EPA, and NOAA, to promote the use of environmentally and economically sound farm production practices, and to develop improved chemical and biological pest controls.

Under the WQI, USDA has established the USDA Water Quality Program to determine the precise nature of the relationship between agricultural activities and ground water quality; and develop and induce the adoption of agrichemical management and agricultural production strategies that protect ground and surface water quality.

Technical and Financial Assistance Programs — USDA provides a number of technical and financial assistance programs to assist in protecting water resources.

- The *Agricultural Conservation Program (ACP)*, initiated in 1936, provides financial assistance to farmers for implementing approved soil and water conservation and pollution abatement practices. Cost-share payments may not exceed $3,500 per year for 1-year agreements, or an average of $3,500 for multi-year agreements. Except for Water Quality Special Projects, conservation priorities are set by states and counties based on local soil and water quality problems.

- The *Conservation Technical Assistance (CTA)*, initiated in 1936, provides Soil Conservation Service (SCS) technical assistance through conservation districts to farmers for planning and implementing soil and water conservation and water quality improvement practices.

- The *Rural Clean Water Program*, initiated in 1980 and ending in 1995, is an experimental program implemented in 21 selected projects under the authority of the Clean Water Act. It provides cost-sharing and technical assistance to farmers voluntarily implementing BMPs to improve water quality. Cost-sharing is limited to $50,000 per farm.

- The *Extension Service* provides information and recommendations, in cooperation with SCS and conservation districts, on soil and water quality practices to landowners and operators.

- The *Farmers Home Administration (FmHA)* provides loans to farmers and associations of farmers for soil and water conservation, pollution abatement, and building or improving water systems that serve several farms.

- The *Rural Conservation and Development Program*, initiated in 1962, assists multicounty areas to enhance conservation, water quality, wildlife habitat and recreation, and rural development.

- The *Great Plains Conservation Program*, initiated in 1957, provides technical and financial assistance in Great Plains states to farmers and ranchers who implement total conservation treatment of their entire operation. Cost-sharing assistance is limited to $35,000 per contract.

- The *Small Watershed Program*, initiated in 1954, provides technical and financial assistance to local organizations for flood prevention, watershed protection, and water management.

- The *Water Bank Program*, initiated in 1970, provides annual payments for preserving wetlands in important migratory waterfowl nesting, breeding, or feeding areas.

- The *National Agriculture Library* collects and distributes information on all aspects of U.S. agriculture, and has received special funding to develop a new information program on agriculture and water quality.

USDA Research Programs — One of the objectives of USDA's Research Plan for Water Quality is to improve existing and develop new cost-effective agricultural systems to address water quality problems. USDA's Agricultural Research Service (ARS), Cooperative State Research Service (CSRS), and Economic Research Service (ERS) conducts research on agriculture and water quality. ARS conducts research on new and alternative crops and agricultural technology to reduce the impacts of agricultural production on soil and water. CSRS coordinates soil conservation and water quality research conducted by State Agricultural Experiment Stations and land grant universities. CSRS allocates funds appropriated by

Congress for special and competitive grants for water quality research. ERS estimates the economic impacts of existing and alternative policies, programs, and technology for preserving and improving soil and water quality. Along with the National Agricultural Statistics Service, ERS collects data on agrichemical use, agricultural practices, and costs and returns.

Farm Bill Programs — The Food Security Act of 1985 has four major provisions that contribute to meeting water quality protection objectives; the Food, Agriculture, Conservation, and Trade Act of 1990 adds four additional programs.

- *Conservation Reserve Program* — The Conservation Reserve Program (CRP), authorized in the 1985 Farm Bill and expanded in size and scope to cover water quality concerns, allows USDA to make annual rental payments to landowners who voluntarily retire highly erodible cropland and other environmentally critical lands from production for 10 years. It pays up to 50 percent of the cost for establishing a soil-conserving cover crop on the retired lands.

- *Conservation Compliance* — The Conservation Compliance provisions require farmers who produce on highly erodible cropland to develop and implement a conservation compliance plan by January 1, 1995. The requirement affects 40 percent of U.S. farmers, 135 million acres of highly erodible land, and involves 1.3 million plans. Less than 2 percent of highly erodible land will be uncovered once the plans are implemented. A combination of the conservation reserve and conservation compliance program is projected by USDA to reduced erosion by 1.5 billion tons per year, half of all erosion on all cropland.

- *Sodbuster & Swampbuster Provisions* — Sodbuster provisions prevent farmers from new production on highly erodible land unless it is done under an approved conservation plan. Swampbuster provisions prevent farmers who convert wetlands to crop production from collecting farm program benefits, unless USDA determines that conversion would minimally affect wetland hydrology or biology.

- *Wetlands Reserve Program* — The Wetlands Reserve Program (WRP) is a voluntary program offering landowners a chance to receive payments for restoring and protecting wetlands on their property. Authorized by the 1990 Farm Bill, the WRP provides a unique opportunity for farmers to retire marginal cropland and reap the many benefits of having wetlands on their property. WRP obtains 30-year or permanent conservation easements from participating landowners and provides cost share payments for wetland restoration. Currently, 50,000 acres are under easement to restore previously converted wetlands, reducing NPS pollution potential, and enhancing wildlife habitat, flood control, and ground water recharge.

- *Water Quality Incentive Program* — The goal of the Water Quality Incentive Program (WQIP) is to achieve source reduction of agriculture pollutants by implementing management practices (BMPs) in an environmentally and economically sound manner on 10 million acres of farmland by thee end of 1995. USDA provides agricultural producers with the necessary financial, educational, and technical assistance required to make changes in management systems to:
  1) restore or enhance the impaired water resources where agricultural NPS pollution has a detrimental effect; and
  2) prevent future impairments.

  Producers must submit applications for enrollment, and a long-term agreement is developed, generally for three years. The WQIP incentive payment limitation is $3,500 per person per year for up to 5 years. Eligible acres for WQIP has expanded to include areas identified in state NPS

management plans (section 319), areas with shallow karst topography, and other environmentally sensitive areas.

- *Conservation Environmental Easement Program* — The Conservation Environmental Easement Program provides for permanent easements on lands that pose a significant environmental threat. The exact eligibility for these lands is yet to be determined, and funding is not yet available.

- *Integrated Farm Management Program Option* — The Integrated Farm Management Program Option adds planting flexibility to federal farm programs, and encourages farmers to adopt resource conserving crop rotations to help prevent soil erosion and protect water quality on 5 million acres. The program requires farmers to carry out an approved farm management plan to promote the use of soil conserving crops and rotations on at least 20 percent of their crop base qualified for federal programs.

National Water Quality Assessment Program — The National Water Quality Assessment Program is a major national assessment designed to describe the status and trends of U.S. waters and identify the factors that affect water quality. In the pilot phase of the project, the USGS is investigating the extent and location of ground water pollution by agrichemicals in several regions of the U.S.

Mid-Continent Herbicide Initiative — In cooperation with USDA's Midwest Initiative, USGS is conducting the Mid-Continent Herbicide Initiative, a five- to ten-year research program on the impact of the agricultural herbicide atrazine on ground and surface water.

USGS Federal-State Cooperative Program — This program is a partnership for water-resources investigations involving 50-50 cost sharing between the USGS and more than 1,000 cooperating state or local government agencies. The USGS performs most of the work on behalf of the cooperators. A variety of hydrologic data collection activities and water-resources investigations are included in the program. Examples include providing support for mapping aquifers, for monitoring pesticide contamination, and assisting in developing wellhead protection programs.

State Water Resources Research Institutes Program — Under this program, USGS provides grants to 54 state and U.S. territory Water Research Institutes at land-grant colleges or universities. The grants support research, information dissemination, and training for students in water resources fields.

USGS Information Dissemination Programs — Through its annual National Water Summary report, USGS provides water quantity and quality information on a state-by-state and national basis to aid policymakers in the analysis and development of water policies, legislation and management actions. The report also includes case studies of NPS contamination and summaries of studies on managing and coordinating federal and state water protection efforts.

USGS' Hydrologic Data Collection Program provides information on the quantity, quality, location, and use of the nation's surface and ground water. Data collection stations are maintained at selected locations to provide records on streamflow, reservoir and lake storage, ground water levels, and the quality of surface and ground water. These data form an information base that support national and regional water-resource assessments.

Maine's Pesticide Control Regulations — The Maine Pesticide Control Act of 1975 is the primary legislative authority to regulate the labeling, distribution, storage, transportation, use, and disposal of pesticides in Maine. Under this Act the state may cancel the registration of a pesticide, restrict its use,

or suspend its use if it poses an imminent hazard. Part of the state's pesticide registration fee is deposited into a fund to cover the costs of Maine's Integrated Pest Management (IPM) program. The state is adding training in ground water protection to its restricted-use pesticide certification program. The state's Pesticide Control Board has the authority to designate critical areas where pesticide use would present an unreasonable threat to water quality.

Iowa's Restrictions on Atrazine — Prior to EPA's classification of atrazine as a restricted-use pesticide in 1991, Iowa classified atrazine as a restricted-use pesticide, limiting its use to certified applicators. Iowa reduced the maximum allowable application from 4 to 3 lb/acre/year, and restricted maximum application to 1.5 lb/acre/year in contaminated or vulnerable ground water areas. Additionally, Iowa now prohibits atrazine application within 50 feet of a sinkhole, well, cistern, lake, or surface water impoundment, and mixing, loading and repackaging within 100 feet of the same.

California's Pesticide Control Measures — Proposition 65 prohibits a person in business with 10 or more employees from knowingly discharging a chemical known to cause cancer or reproductive toxicity into water or onto or into land where the chemical may pass into a source or potential source of drinking water. The Pesticide Contamination Prevention Act was passed specifically to try to prevent or minimize future ground water contamination by pesticides.

Nebraska's Restrictions on Fertilizer Use — The Central Platte Natural Resource District (a multi-county regional political subdivision) has established restrictions on nitrogen fertilizer use in a designated Groundwater Management Area. The program has three phases depending on the concentration of nitrates found in wells. All phases include requirements for education, collection of soil and water samples, and efficient fertilizer use. The most severe phase totally bans applications.

Fillmore County, Minnesota's Erosion Control Ordinance — Fillmore County is located in a karst area of Minnesota and has identified agricultural runoff and erosion as sources of both surface and ground water contamination. The County's Erosion Control Ordinance considers any occupiers of farmland to be in compliance if: (1) they are using soil conservation practices approved by the County Soil and Water Conservation District Board; (2) they do not have rills, gullies, or sediment deposits in their fields; and (3) their farming methods do not create sediment problems on adjoining properties. Violators of the ordinance have 30 days to work with the County Soil and Water Conservation District to develop a plan that must include: (1) specific practices to stop the sedimentation; and (2) a timetable for completing the practices.

Maryland Critical Area Program — The goal of the program is to improve the water quality of the Chesapeake Bay. The Maryland Conservation Reserve Program will pay farmers $20 per acre annually to enroll cropland within critical areas and along stream boarders in the federal CRP.

Chesapeake Bay Nutrient Reduction Program — The Chesapeake Bay Agreement of 1987 calls for a 40 percent reduction of nitrogen and phosphorus entering the mainstream of the bay by the year 2000. Maryland, Pennsylvania, and Virginia have initiated nutrient management programs to assist in reducing agricultural NPS pollution to the Bay. After over five years of significant cooperation on the part of the landowners, experts now believe that agriculture may not be the source of nutrient loadings to the Chesapeake Bay. In fact, the Environmental Defense Fund released a 1988 report which considers septic systems, high density development, sewage treatment plants, and atmospheric deposition as the dominant sources of nitrogen in the Bay.

- Maryland's Cooperative Extension Service assists farmers in the development of nutrient management plans under *Maryland's Nutrient Management Program*. Since 1989, farmers have prepared 748 plans, covering 49,966 acres of cropland. Nutrient management plans include manure tests for nutrient content, soil tests, documentation of crop histories and manure management, documentation for a statewide nutrient management data base, and personalized service from consultants. First priority for preparation of the plans is given to farmers applying for state cost-share funds for all animal waste storage BMPs.

- *Pennsylvania's Nutrient Management* cost share program is funded in part by the Chesapeake Bay Program. Cost sharing for installation of BMPs is available to farmers within priority watersheds where they must adopt nutrient management plans. Such plans include manure tests, soil tests, summaries of recommended nutrient applications, and provisions for verifying nutrient and pollution reduction. Conservation districts provide technical assistance in developing the plans, and a mobile nutrient laboratory assists with rapid analyses of soils, water, and manure.

- *Virginia's Chesapeake Bay Preservation Act* requires farmers in the 13 coastal counties to develop water quality management plans that include integrated pest management plans, soil conservation plans, and nutrient management plans. Since 1989, the state has required farmers statewide to develop nutrient management plans to receive cost share funds for animal waste BMPs. A new law allows tax credits for purchases of manure and pesticide spreaders for farmers with nutrient management plans approved by their local conservation district.

Kansas' Cost-Share Efforts under the State Water Plan — In 1989, Kansas established the State Water Plan Fund to serve as a dedicated source of funding for state water planning activities. The economic incentives are available both for practices to treat highly erodible land and practices to protect water quality by limiting run-off of agricultural contaminants.

North Carolina's Cost-Sharing to Reduce Nutrients — The voluntary North Carolina Agricultural Cost-Share Program was established to protect surface water from contamination by sediments, nutrients, animal wastes, and pesticides. The program pays farmers 75 percent of the average cost to implement appropriate BMPs.

Jefferson County, Washington's Water Quality Improvement Fund — Washington state provides $200,000 to Jefferson County for loan to county residents in a low-interest loan program — the Jefferson County Water Quality Improvement Program — which finances major NPS pollution control projects. The funds for the state loan are from the state's Revolving Loan Fund, capitalized by an EPA grant and a 20 percent state matching grant. The Fund is designed to encourage and assist county residents in repairing or upgrading existing septic systems under the direction of the County Health Department and in designing and implementing farm plans and agricultural BMPs under the direction of the County Conservation District.

Iowa's Education and Technical Assistance Efforts — Iowa's 1987 Groundwater Protection Act establishes a program for research education, and demonstration projects to address ground water problems caused by agricultural contaminants and other sources. The law requires the state Department of Agriculture and Land Stewardship (DALS) to promote the adoption of BMPs for soil conservation and for reducing ground water contamination from agricultural chemicals. As part of this effort, DALS is helping finance the Private Pesticide Applicator Training Program conducted by Iowa State University Cooperative Extension Service, which is educating over 60,000 farmers on environmental and personal

safety when applying fertilizers and restricted-use pesticides. The program also covers nonchemical methods to control weeds and pests.

Wisconsin's and Minnesota's Farmstead Assessment Worksheets — Wisconsin and Minnesota have prepared pilot versions of worksheets to assist farmers in assessing the effectiveness of farmstead practices in protecting drinking water. Practices for assessment include well condition, pesticide storage and handling, fertilizer storage and handling, household wastewater treatment, and livestock waste storage. Accompanying each worksheet is a separate publication with recommendations on modifying practices to minimize pollution risks, and suggested sources for additional information.

Maine's BMP Manual — Maine collaborated with SCS, the Extension Service, and farmers to produce a BMP manual that educates farmers on the characteristics of agricultural chemicals and offers practical tips on protecting water from contamination.

Virginia's Outreach Efforts — The Virginia Water Resources Center has developed instructional materials, exhibits, and publications on water quality protection. The Virginia Extension Service conducts water quality related outreach activities for the agricultural community as well as local citizens, local government staff, and students.

State Research and Data Management — Basic and applied research that supports water quality protection efforts is being carried out by the states, mostly at state Agricultural Experiment Stations, land-grant universities, and Water Resources Research Institutes. Much of this research is at least partially funded by federal grants. States are also developing data management systems to store and maintain the information they need to implement their water quality protection efforts.

- *Connecticut* — The College of Natural Resources of the University of Connecticut conducts research on pesticide usage issues and on IPM, while the state Agricultural Experiment Stations study the fate of pesticides in the environment. Connecticut has an extensive data base on the hydrogeological conditions of the state. In cooperation with USGS, the state Department of Environmental Protection has collected information on all watersheds, the properties and distribution of aquifers, depth to water tables, water quality in vulnerable or sensitive areas, locations of public water supply wells, locations of pollution sources, etc.

- *New York* — The state Water Resources Research Institute at Cornell University conducts research on the water quality effects of agricultural chemicals. Researchers are evaluating the relationship between pesticide application practices, crop production, and ground water quality for potato crops. In addition, the Institute is interested in studying the effects of soil organisms on chemical transport, microbiological degradation of chemicals, transport of microbes within the soil, and the toxic effects of ground water contamination on ecological systems. Faculty at Cornell, Oregon State University, Michigan State University, and the University of California at Davis have been developing a toxicological information system called EXTOXNET. The system will be used by Extension agents to answer questions about current or potential contamination by agricultural contaminants.

- *Pennsylvania* — Pennsylvania State University is involved in several research efforts. First, Penn State and three other U.S. universities are studying the environmental fate of pesticides under minimum and conventional tillage. Second, Penn State is involved in a cooperative venture to reduce NPS pollution in the Chesapeake Bay watershed. Third, the university participates in a well-funded program to develop expert systems for pest management on all crops. Fourth, Penn

State is interested in developing insect and disease forecasting and monitoring techniques; these include counting insects and the use of weather-based data to predict the occurrence of plant pathogens in food crops. Finally, Penn State is studying pest resistance in apples in a cooperative project with the University of Vermont and four or five other states to study how to increase resistance in host or crop plants through selective breeding.

Comprehensive State Ground Water Protection Program — Since 1984, EPA has encouraged states to develop state ground water protection strategies and programs, and supported the states' efforts with technical and financial assistance. In 1989, EPA established a high-level Ground-Water Task Force to "develop a strategy for the direction EPA will take in ground-water protection." The task force released its final report that sets forth a new strategy to ensure comprehensive protection of the nation's ground water resources. A key component of this strategy is to actively involve state officials in developing and implementing Comprehensive State Ground Water Protection Programs (CSGWPPs). EPA will promote the development of CSGWPPs through technical and financial assistance to the states. To the extent authorized by federal statute and consistent with federal program objectives, EPA will defer to state policies, priorities, and standards once the agency recognizes that a state has developed a comprehensive protection program.

Wellhead Protection Programs — The Safe Drinking Water Act requires each state to prepare a Wellhead Protection (WHP) Program to protect public water supply wells from all potential sources of contamination. In many instances, regional agencies and local governments have taken the initiative in pursuing WHP. As of September 30, 1992, EPA has approved 25 state WHP programs. Some states are developing measures to deal with agricultural sources within WHP areas. In Florida, regulation of pesticide use within WHP areas is awaiting modeling of pesticide behavior in soil and water for selected restricted-use pesticides. Also, efforts to develop policy or regulations for governing nutrient discharges to ground water have begun. The 1990 Farm Bill includes a provision to make cropland within WHP areas eligible for inclusion in the WQIP and the CRP.

Drinking Water Program Implementation — The Safe Drinking Water Act directs EPA to establish minimum national drinking water standards which set legally enforceable limits on the amounts of potentially harmful substances, including some pesticides and nitrate, in drinking water. Under Congress' direction, EPA has granted, since 1974, primary enforcement authority to fifty states and four territories.

Pesticide Management Plans — Because of site-specific differences in ground water sensitivity and pesticide usage, EPA believes that states are in the best position to tailor pesticide prevention management measures to local conditions. Under the Agency's pesticide and Ground Water Strategy released in 1991, states implement State Pesticide Management Plans (SMPs). In line with this approach, EPA is providing funding and guidance to states to assist them in developing generic SMPs, and in building the state's capacity to evaluate such factors as ground water vulnerability, monitoring data, and how and where the pesticide of concern may be used.

The ground water strategy explains that under FIFRA, EPA may require states to develop chemical-specific SMPs for a particular pesticide of concern as a condition of continued use of that pesticide. The SMPs may vary widely from state to state, depending on a state's ground water sensitivity assessments, the level of pesticide usage in the state, and the state's ground water protection philosophy. The SMPs must include several components, including discussion of roles and responsibilities, legal authorities, prevention actions, available resources, monitoring, enforcement, and response detections.

Underground Injection Control Program — A provision of the Safe Drinking Water Act mandates the development of an EPA-approved underground injection control (UIC) program for each state, U.S. possession, or territory. The purpose of the program is to prevent contamination of underground sources of drinking water by injection wells, classified into five categories by the EPA. Class V wells include agricultural drainage wells, which may pose a high potential for ground water contamination. Agricultural drainage wells may receive field drainage from precipitation and floodwaters, irrigation return flow, and animal yard, feedlot, or dry runoff. Potential contaminants include suspended solids, pesticides, nutrients, salts, organics, metals, and microbes including pathogens. Current EPA regulations authorize Class V wells to operate by rule if: (1) their existence was reported to the states or EPA within the specified time; and (2) they do not contaminate an underground source of drinking water to the extent that it would violate a maximum contaminant level (MCL) or otherwise endanger public health.

New York City Watershed Program

A situation which has received a great deal of attention is the efforts which the farm community, New York City, local government, and New York State have taken to preserve water quality in the New York City Watershed area. This successful effort is based upon the prospective voluntary adoption of best management practices to control nonpoint source pollution by the more than 550 dairy farmers in the New York City Watershed area. Let me briefly outline the successful voluntary program.

Farming has been practiced in the New York City Watershed area of Delaware, Schoharie, Sullivan, and Greene counties since long before New York City came to rely on the watershed for most of its water supply. The City has preserved its water quality in the midst of agricultural production for decades. Efforts to improve farming practices, especially through the adoption of soil and water conservation techniques, with the leadership of the Soil Conservation Service delivered through the local Soil and Water Conservation Districts and the Agricultural Stabilization and Conservation Service, have allowed farmers to maintain the economic viability of their farms by keeping their topsoil on the land. This voluntary, locally based effort by farmers has a proven record of success, not just in New York State but in most parts of the United States.

Agriculture in the Watershed has been changing. The pressures of the economics of dairy farming have led to larger herds of dairy cows, intensification of land use for crop production, and greater concentrations of animal waste. New measures, based upon the proven path of voluntary and locally based approaches, need to be implemented to cope with the increased requirements for drinking water protection and raw water quality maintenance in the New York City Watershed area. The Whole Farm Planning Approach Program is being implemented to meet the needs of farmers in the watershed, as well as the metropolitan-area urban public, which is dependent upon this surface water supply. This approach was the result of a lot of hard work by all who were concerned about long-term protection of the City's water quality, while maintaining the agricultural economy of the area.

In mid-1990, New York City circulated draft mandatory restrictive agricultural land use regulations in order to meet their goal of drinking water source protection without resorting to a costly filtration system. Uniform and inflexible regulations were seen as unworkable and undesirable by the local agricultural community due to their negative impact upon the farm economy of the region.

In December 1990, the New York City Department of Environmental Protection and the New York State Department of Agriculture and Markets cooperated in convening an Ad Hoc Task Force on Agriculture and New York City Watershed Regulations. This group was composed of local farmers, local agricultural, environmental and government organizations, state representatives, and technical advisors. The Task Force was comprised of a Policy Group and a Technical Support Group. Members of the

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Policy Group represented agencies that are directly involved in issuing and administering the proposed watershed regulations, groups that are affected by the regulations, and organizations that may contribute to facilitating them.

I have attached a copy of the Task Force final report with the Committee, so you may have the opportunity to study its membership and the program scheme as it emerged from these negotiations. The goal of the group was to find an alternative to a mandatory set of rules and regulations which would still achieve the desired level of water quality protection. Over the course of a year the Whole Farm Planning/Best Management Practices approach for the New York City Watershed concept was developed and evolved.

Farming in the New York City water supply watersheds presents a complicated environmental management problem. Farming methods and practices are a potential source of nonpoint source pollution and present a risk of pathogen introduction, siltation, toxics, and nutrients introduction to the City's reservoirs. Farm practice pollution control is critical for meeting the City's anti-degradation objectives, as well as the avoidance criteria of the Federal Surface Water Treatment Rule and the State Filtration Rule. On the other hand, farming is a preferred land use as compared with more intensive uses like second homes, which pose even greater threats to the City's drinking water quality, with significant long-term environmental benefits, and the City wants to take all appropriate steps to keep farming economically viable and in control of the land.

A locally developed and administered program of best management practices, tailored farm by farm, with the voluntary cooperation of the farm operator, would contribute far more to achieving the avoidance criteria, as well as enhancing the viability of the farm enterprise and the agricultural economy. Discussions in the Ad Hoc Task Force convinced members of the Task Force representing the City and the farm community that the regulatory proposal took a purely water quality perspective and set absolute technological standards for all farm practices, to be applied uniformly in all farm situations (uniform set-backs from streams, berming pastures, control of all pesticide use, etc.).

The City, after consulting with appropriate regulatory bodies and after full review of federal and state regulations, was satisfied that such a program would meet the avoidance criteria for effective watershed regulation, and represents the best strategy for dealing with concerns of both the City and the farm community.

Whole Farm Planning/Best Management Practice Program Option

Guiding Principles — In place of the agricultural regulations, farmers have the option of participating in a voluntary Whole Farm Planning/Best Management Practice Program. These are the guiding principles for the program:

- The objective of the program is to protect the sources of the New York City water supply, while keeping farms in operation. Agriculture should be continued and promoted as a preferred land use in the New York City watersheds. Except for a general prohibition to safeguard against individual farm operators who exhibit a willful and irresponsible intent to pollute in a manner that threatens to significantly increase pollution levels and degrades the source waters of the City's water supply, the program will be entirely voluntary.

- The preferred approach to source protection for farms is the use of Best Management Practices (BMPs) developed to meet water pollution control policies under the 1989 NYS Nonpoint Source Water Pollution Control Act and section 319 of the Federal Clean Water Act amendments of 1987.

- The mechanism of choice for selecting agricultural BMPs is preparation of a Whole Farm Plan for each farm. A collateral objective for each Whole Farm Plan is to sustain and improve the economic viability of the farm. Whole Farm Plans will be prepared by a local county project team, including personnel from the County Soil and Water Conservation District, Cornell Cooperative Extension, and the Soil Conservation Service.

  Whole Farm Plans will involve these components: soil erosion control, animal waste management, plant nutrient management, domestic animal pathogen management, and chemical and pesticide management. Whole Farm Plans will address these agricultural contaminants: nutrients, pathogens, sediments, toxicants, and organic matter. The level of control required for each Whole Farm Plan should depend on the presence of hydrologically sensitive areas.

- Incentives, including cost-sharing, will be made available by the City to participating farmers, supplemented by a reasonable mix of state, federal and local funding sources, if available.

- Continuing education, professional training, and local involvement are essential components of the Whole Farm Program.

The Whole Farm approach to drinking water quality source protection integrates selected management practices intended to provide short- and long-term protection of water quality, with a farm business plan designed to sustain a profitable agricultural enterprise, given the mix of physical, capital, and management resources available to and consistent with the objectives of the farm operator. Development of a farm plan to meet these twin goals requires a comprehensive assessment of all elements of the farm property, as well as the business strategies and practices that affect both.

The evaluation of current farming conditions and practices and the development of options for both the farm business enterprise and water quality protection will be a collaborative venture between the farm operator and the Cooperative Extension/Soil and Water District County Project Team, supported by the Soil Conservation Service, Cornell University faculty and staff, New York State Soil and Water Conservation Committee, and the New York City Department of Environmental Protection.

The systematic use of the Whole Farm Planning approach to accomplish pollution prevention in a large watershed system has not been previously attempted anywhere. The Whole Farm Plan is a new concept which requires the integration, and some modification, of the diverse views and convictions of the agencies involved. The purpose of Phase I of the Agricultural Watershed Protection Program is to perfect, test, and demonstrate the Whole Farm Planning approach on selected farms, and to strengthen the New York City/local partnership in the process.

Locally-Administered Whole Farm Planning/Best Management Practice Program — The City has established a locally administered program for the planning and implementation of Whole Farm Plans, in conjunction with watershed farm operators, with assistance from the New York State Soil and Water Conservation Committee, the Soil and Water Conservation Districts, Cornell Cooperative Extension, the New York State Water Resources Institute, the New York State Department of Environmental Conservation, the New York State Department of Agriculture and Markets, the Soil Conservation Service, and other appropriate institutions.

This program is responsible for:

- Reviewing existing BMPs for their applicability to watershed pollution control objectives.

- Developing and implementing a series of immediate demonstration programs with local farm operators to test the feasibility and define the methodologies of the Whole Farm Planning approach to source protection.

- Working with farmers to prepare Whole Farm Plans, and implementing those plans.

- Establishing a voluntary Whole Farm Planning/Best Management Practices Program for the entire farm community.

Voluntary Participation — Until December 31, 1996, the City is offering farm operators the opportunity to voluntarily participate in the Whole Farm Planning/Best Management Practice Program. A goal of 85 percent participation in this program by farmers throughout the watershed has been established.

Farm operators who choose to participate will be given until December 31, 1996, to work with their County Project Team to develop a Whole Farm Plan and agree to install practices according to the schedule outlined in the plan. Farm operators voluntarily participating in the Whole Farm Planning/Best Management Practices Program will be held harmless and not required to amend the farm practices agreed to in their whole Farm Plan even if, after the evaluation of the entire program in 1997, the City, in consultation with the Watershed Agricultural Council, determines there are changes needed in the watershed regulations or agricultural program. Participating farm operators would still remain responsible for violations of existing federal, state, and local standards pertaining to water quality.

Cost-Sharing — Participating farm operators will receive City cost-sharing for both the planning and implementation of the Whole Farm Planning/Best Management Practices Program, to the full extent of any cost incurred, adjusted for whatever funding is otherwise made available under existing or future federal and state agricultural water quality and other cost-sharing programs. The City will pay the cost to the farmer of participating in development of the Whole Farm Plan. Costs incurred shall include BMP operation and maintenance costs identified in the Whole Farm Plan, to the extent they represent new and additional farm operating costs considered necessary to the pollution prevention objectives of the plan.

Review of Progress in 1997 — During 1997, the City, with the assistance of the Watershed Agricultural Council and other appropriate public and private parties, will engage in a review of the results of the voluntary agricultural best management program. This review will assess the extent to which the practices and facilities called for by the Whole Farm Plans have been, or are being, adopted on schedule and are being properly maintained. Also needed is an evaluation of whether the results are consistent with the requirements of the avoidance criteria and the City's anti-degradation water quality objectives. If the review does not justify a continuation of the program in its adopted form, the City will submit to the New York State Department of Health such revisions to the watershed regulations as it deems necessary to continue to meet its obligations and responsibilities.

The City will work with the Watershed Agricultural Council on developing parameters and criteria for evaluating the agricultural program in 1997, including a variety of program and regulatory options to consider in the event that changes may be needed.

Implementation of Principles and Standards — Agricultural BMPs, as developed by New York State in support of the nonpoint source water pollution control policies of State Law and section 319 of the Federal CWA Amendments of 1987, are the preferred methodologies and techniques for implementing these principles and standards on farms in the New York City watershed system. The Whole Farm Planning approach will be employed to tailor the applicability of relevant BMPs to conditions peculiar to each farm,

while providing for a farm management plan that sustains or enhances the efficiency, productivity, and economic profitability of the farm enterprise.

Scientific uncertainty exists when relating agricultural practices to their effects on raw water compliance with drinking water standards. Drinking water standards for raw water at its source covering some of the agricultural contaminants of concern are not defined. Therefore, as a general rule, Whole Farm Plans should call for the design, installation, management, and maintenance of any combination of BMPs necessary to limit the release of nutrients, organic matter, domestic animal-borne pathogens, toxic chemicals, and soil to any surface or ground water body, consistent with applicable state and federal laws and regulations, as well as with the water quality goals established for the watershed. In those cases where it can be shown that an activity on a specific farm leads to an actual violation of a legally adopted water quality standard, the farm shall be required to alter the activity to the extent necessary to meet the water quality standards.

While it may be possible to achieve zero discharge of some contaminants during some periods (i.e., avoiding winter land application of manure or relying wholly on biocontrols or cultural practices to control some pests) universal attainment of zero discharge for all agricultural contaminants at their source is not practically achievable.

BMP Implementation — The implementation of Whole Farm Plans may be viewed as a two-level process. First, the "installation" of physical structures prescribed by the farm plan will need to be arranged. These structures may include grass waterways, manure storage facilities, barnyard improvements, diversions, etc. Engineering expertise is needed from the design through final certification of construction. Engineering technical assistance needed includes: gathering of site-specific data on soil type, drainage characteristics, and topography; preparing construction drawings, specifications, and contract documents; reviewing design with the landowner; assisting the landowner in securing a contractor; surveying and staking out the project site; inspecting ongoing installations/constructions; and certifying that projects meet contract standards.

The second level of implementing Whole Farm Plans requires the integration of a farm's physical, human, and time resources so that prescribed changes can be incorporated into the operational routine of the farm. This level of implementation involves an array of educational activities targeted at changing perceptions, attitudes, practices, and beliefs of farm managers.

Summary of New York Watershed Program — Additionally, in New York we have taken a similar approach to our statewide non-point source program. In accordance with guidance provided by state agencies, individual counties have formed County Water Quality Coordinating committees, which in turn have developed County Water Quality Strategies. These strategies identify water quality problems and outline programs to address these problems. The strategies focus on the use of education and technical assistance to prevent and remediate water quality issues at the local level. Because these programs and actions originate at the local level, the opportunity for success is greatly enhanced. When citizens have ownership of solutions to problems, action occurs and progress follows. The farm community has responded positively on this issue, as they have in the past, to programs which recognize their needs while pursuing water quality objectives.

While we are still in Phase I of the process and much has yet to be accomplished to prove that the process ultimately works, I believe this farm-by-farm approach is tentatively accepted by the farm community in the watershed as a much preferred alternative to a traditional top-down, standard-setting, enforcement, penalty system of regulation. In fact, I am persuaded that the latter approach cannot be made to work for farms, each of which is somewhat difference from the other.

Before moving on to NASDA's overall position on CWA reauthorization, I would like to summarize the important principles embodied in this approach to non-point pollution prevention that has been adopted as the alternative to a uniform regulatory system for the farm sector of New York City's watershed.

- The system for pursuing the City's water quality objectives, as they are affected by the agricultural segment of the watershed community, was arrived at by negotiation and consensus — not by fiat.

- The program is locally delivered and administered by an existing — not a new — group of institutions with whom farmers are familiar; who understand farming science, methods and techniques, and farm business operations; and whom farmers trust.

- The responsible regulatory institution — in this case, New York City's Department of Environmental Protection — has created contractual relationships with these locally based delivery entities to serve its public policy objectives, and has established a collaborative mechanism with the farm community generally to assure continued communication, momentum, and support.

- The cost of both the farm planning process and the installation of practices called for by each plan to achieve the pollution prevention goals of the responsible agency is financed by the responsible agency — or, in any case, not by the farmer. Once the front-end costs are overcome, these improvements will benefit the economic operation of the farm.

- The program is voluntary, but there is sufficient unchallengeable legal authority in the background, coupled with a time threshold for a high rate of sign-up, to spur participation.

- Improved and sustainable (unsubsidized) farm profitability, combined with 100 percent cost-sharing for planning and the installation of water-quality-related capital improvements and practices, creates strong incentives for farm participation.

Wetlands Regulations

Let me now turn to another area you, Mr. Chairman, asked me to address — wetlands regulations impact on agricultural production. NASDA strongly believes that many of our nation's wetlands are highly valuable resources that must be conserved and enhanced. At the same time, any federal program to protect wetlands must also preserve private property rights and allow for a balance between economical agricultural production and wetland conservation.

The debate over federal wetlands policy has proven to be one of the most contentious and difficult issues facing Congress. Clearly, the federal government has a role in stemming the rate of wetlands loss and encouraging restoration of areas that have been degraded by pollution or careless development activity. The policy development process is complicated by the reality that 75 percent of the nation's wetlands resource in the lower 48 states is privately owned and that much of that resource is located near large population centers.

Conserving and restoring the nation's wetlands will require an enormous commitment of privately owned land, money and expertise. It cannot be accomplished without the involvement of the private sector, particularly the people who own wetlands, in conservation and restoration activities.

The need for wetlands regulatory reform cannot be dismissed. The federal regulatory wetlands program in effect today under section 404 of the Clean Water Act is not the product of a carefully considered and fully debated legislative policy. Current federal wetlands law is the result of 20 years of bureaucratic

decisions and judicial rulings under very general statutory authority — authority that does not mention the word "wetlands."

NASDA, therefore, believes that in order to protect wetlands and preserve private property rights, the following modifications must be made to section 404 during the Clean Water Act reauthorization.

Wetland Definition and Delineation — Wetlands should be defined as lands which have a predominance of hydric soils and which are inundated by surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated conditions. This definition generally includes swamps, marshes, bogs, and similar areas.

In implementing this definition, rules should be established to delineate such wetlands, which —

- result in the delineation of lands as wetlands only if clear evidence of wetlands hydrology, hydrophytic vegetation, and hydric soils are present during the period in which such delineation is made;
- result in the classification of vegetation as hydrophytic only if such vegetation is more typically adapted to wet soil conditions than to dry soil conditions or is equally adapted to wet or dry soil conditions;
- result in the classification of lands as wetlands only if some obligate wetlands vegetation is found to be present during the period of delineation;
- result in the conclusion that wetlands hydrology is present only if water is found to be present at the surface of such lands for at least 21 consecutive days during the growing season (defined as the period between the average date of the last frost in the spring and the average date of the first frost in the autumn) in which such delineation is made and for 21 consecutive days in the growing season in a majority of the years for which records are available; and
- does not result in the classification of lands as wetlands that are temporarily or incidentally created.

For the purpose of delineating wetlands, normal circumstance should be determined on the basis of the factual circumstances in existence at the time the delineation is made.

Classification System — In order to preserve and protect truly valuable wetlands, a classification system should be developed for lands which meet the above definition. The system could restrict activity on high value wetlands, allow for permitted activities on moderate value wetlands, and exempt low value wetlands from regulations. In cases where economic production is denied on a class of wetlands, compensation should be provided to the land owner.

The category of wetlands statutorily exempt from regulations should include: 1) land that was both manipulated and cropped before December 23, 1985 (prior converted cropland), 2) wetlands that serve limited wetlands functions, and 3) insignificantly small wetlands.

Normal Farming Practice Exemption — Current law allows normal farming practices on wetlands without a section 404 permit. That "normal farming practice" exemption should be clarified to mean normal ongoing practices as defined by the Secretary of Agriculture, in consultation with the Cooperative

Extension Service for each state and the land grant university system and agricultural colleges of the state. Existing practices and such other practices as may be identified in consultation with the affected industry or community should be taken into account.

Mitigation Requirements & Delineation Activities — Farmers, ranchers and natural resource managers believe the federal government needs to speak with one voice. However, because of the inconsistency caused by separate determinations made under the Farm Bill and the Clean Water Act, producers have too often received conflicting answers from the four different agencies currently having some regulatory responsibility for wetlands.

Unfortunately, the problem seems to be worsening. Recently, the EPA made a decision to join the Corps in using the 1987 Army Corps of Engineers manual when defining a wetland, while the Soil Conservation Service and the Fish and Wildlife Service are using a different definition from the 1990 Farm Bill. A wetlands determination will now be made from two different definitions, two different regulations and four different agencies.

Mitigation requirements for agricultural wetlands under section 404 should be revised to be consistent with the swampbuster requirements in the 1990 Farm Bill.

The 1990 Farm Bill also directs the Soil Conservation Service and the Fish and Wildlife Service to identify wetlands. Any identification or classification system established under the Clean Water Act for agricultural lands should be consistent with those contained in the 1990 Farm Bill.

Wetlands Reserve Program — The 1990 Farm Bill authorized the Wetlands Reserve Program (WRP) for the restoration and protection of wetlands through the purchase of easements on prior converted cropland and farmed wetlands. In fiscal 1992, Congress appropriated $46.357 million to USDA for a pilot program and set a maximum enrollment of 50,000 acres. Landowners demonstrated substantial interest in the restoration and protection of agricultural wetlands. Owners of 2,337 farms submitted bids.

More than 60 percent of the total accepted acreage (30,868 acres) will be restored to wetlands; 14,105 acres will be restored to marshlands, wet meadows, or potholes; 3,374 acres will be restored to other types of wetlands; and 1,542 acres are riparian areas or upland buffers adjacent to restored wetlands that will provide habitat complimentary to the wetlands. An estimated 7,509 acres will directly benefit the recovery of threatened or endangered species.

Due to a permanent commodity program base acreage reduction of 10,113 acres, it is estimated that deficiency payments will be reduced by $3.4 million during the 1993 to 1998 period, and CRP rental payments will be reduced by about $700,000 since 2,056 CRP acres are entering the program.

Congress appropriated no additional funds for the WRP in fiscal 1993. NASDA believes continued and increased funding will assist in conserving and enhancing our wetlands resource.

Executive Branch MOA — The four federal agencies with wetlands protection responsibilities signed a Memorandum of Agreement (MOA), in January 1994, recognizing the Soil Conservation Service (SCS) as the lead federal agency for delineating wetlands on agricultural lands. The agreement — signed by SCS, EPA, the Army Corps of Engineers (Corps), and the Fish and Wildlife Service (FWS) — is designed to enable farmers to rely on SCS wetland maps for determining the extent of wetlands for both the Farm Bill's Swampbuster program and section 404 of the CWA.

The MOA said the agencies "recognize and value the important contribution of agricultural producers to our society, our economy, and our environment." It stated they were committed to "ensuring that federal wetlands programs are administered in a manner that minimizes the impacts on affected landowners to the fullest extent consistent with the important goal of protecting wetlands." The MOA pledged to minimize "duplications and inconsistencies" between Swampbuster and section 404.

According to the MOA, the Administrator of EPA has the ultimate authority to determine the geographic scope of waters of the United States subject to jurisdiction under the CWA, including the section 404 regulatory program. It further states that the Secretary of USDA, acting through the SCS Chief, has the ultimate authority to determine the geographic scope of wetlands for Swampbuster purposes and to make delineations relative to Swampbuster, in consultation with FWS. ("Consultation" is defined for purposes of the MOA as SCS providing FWS an opportunity for full participation in the action being taken and for timely review and comment on the findings of SCS prior to a final wetland delineation pursuant to the requirements of the Farm Bill.) The purpose of the MOA is to specify that determinations made by SCS on agricultural lands, in consultation with FWS, will be accepted by EPA and the Corps for determining section 404 wetland jurisdiction. EPA and the Corps will also accept SCS determinations on non-agricultural lands that are either narrow bands immediately adjacent to, or small pockets interspersed among, agricultural lands.

The MOA defines "agricultural lands" as intensively used and managed cropland, hayland, pasture land, orchards, vineyards, and areas which support wetland crops such as cranberries, taro, watercress, and rice. Lands intensively used and managed for pasture or hayland where the natural vegetation has been removed and replaced with planted grasses or legumes are considered "agricultural lands."

"Agricultural lands" do not include rangelands, forest lands, wood lots, or tree farms. Lands where natural vegetation has not been removed, even though that vegetation may be regularly grazed or mowed and collected as forage or fodder, are not considered "agricultural lands."

Lands owned or operated by a USDA program participant that are not agricultural lands may be delineated by SCS in coordination with EPA and the Corps, and in consultation with FWS at the landowners request. ("Coordination" means that SCS will contact the Corps or EPA and provide an opportunity for review, comment and approval of the findings — in other words, EPA and the Corps will have final approval of non-agricultural land delineations.)

Delineations made on agricultural lands will be done using the National Food Security Act Manual, Third Edition. For delineations on non-agricultural lands, the 1987 Corps Wetland Delineation Manual will be used.

A final written delineation made by SCS will be adhered to by all four agencies for a period of five years. Producers wishing to manipulate a potential wetland after the five-year period expires, will need to contact SCS for an update or face possible violation penalties. SCS may change a wetland determination during the five-year period if new information "warrants" a revision. Such new information may include data on landscape changes caused by a major flood or a landowner's notification of intent to abandon agricultural use, and the return of wetland conditions on a prior converted cropland.

The MOA establishes a monitoring and review process. EPA will lead the four agencies in establishing inter-agency oversight for delineations done by SCS. These reviews will occur, at a minimum, on a quarterly basis for the first year, on a semi-annual basis for the second year, and annually thereafter. When the interagency group cannot resolve a pending issue, EPA may designate a geographic area as a "special case" and assume the responsibility of making the delineation rather than SCS.

Finally, the MOA provides that landowners for whom SCS makes a delineation for either Swampbuster or section 404 will be afforded the opportunity to appeal such determinations through the SCS appeals process. The Corps and EPA, however, have the right, on a case-by-case basis, to determine that a revised delineation resulting from an appeal is not valid for purposes of section 404 jurisdiction.

While many in agriculture welcomed the MOA when it was announced, a more detailed review of the Agreement indicates that SCS may not be in charge of wetlands determination. Not only is the definition of an "agricultural land" inadequate, but a number of loopholes exist which allow EPA to continue to control the process. Congress should not codify the MOA in any legislation, but instead should passed the H.R. 1089, a bill which truly provides for a single federal agency — the Soil Conservation Service — to make all technical determinations with respect to wetlands or converted wetlands on agricultural lands.

Coastal Zone Management Act

As stated above, section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requires that coastal states with federally approved coastal zone management programs develop Coastal Nonpoint Pollution Control Programs to be approved by EPA and NOAA. These programs are designed to bring together authorities and capabilities within state coastal zone management and water quality agencies to jointly address the potential problem of coastal NPS pollution. The purpose of the program is to implement management measures for NPS by more fully integrating federal, state and local authorities. For states to continue receiving federal grant funds under certain NOAA and EPA authorities, their coastal nonpoint pollution control programs must be submitted to EPA and NOAA by July 1995. Management measures must then be fully implemented by January 1999.

The state Coastal Nonpoint Programs represent an innovative approach to dealing with coastal NPS because they build upon state and local authority and expertise. EPA and NOAA have already released two guidance documents to help coastal states control NPS and are working to provide technical assistance and scientific knowledge to help states develop their programs.

Because agriculture is cited as one of the five major sources of nonpoint pollution and will be a major component of the state's coastal nonpoint program, involvement of the state agricultural agency is critical. NASDA recognized the need of state agricultural officials to be informed about the program requirements and be prepared to cooperate with the appropriate water quality and/or coastal zone agency in their state in the development of a balanced Coastal Nonpoint Program. NASDA further recognized that the lack of communication between agencies which so often results due to lack of resources must be overcome as the plan is developed and implemented.

Therefore, NASDA was in the unique position to facilitate the communication between state agencies. NASDA believed its expertise in state enforcement programs and established means of communication with members and the agricultural community would enable the organization to assist EPA and NOAA in assuring cooperation between state agricultural and water quality agencies in the development of the state coastal nonpoint pollution programs.

Through a two-part program, NASDA is attempting to provide a means of training state agricultural officials regarding the requirements of the CZARA and enabling states, especially those with limited resources, to contribute to the development of state coastal nonpoint programs. In consultation with EPA, NOAA, USDA and leading experts in nonpoint source pollution prevention, NASDA has developed and will distribute a process document to assist states in developing their agricultural plan for possible

incorporation in a state's coastal nonpoint program. The agricultural commodity organizations and USDA helped provide the financial resources to develop the document.

NASDA hopes to also host and facilitate a workshop, working with EPA, NOAA and leading experts in nonpoint source pollution, on the CZARA requirements (focusing on the process document) to inform and train state department of agriculture officials and enable them to contribute to the development of the state's coastal nonpoint program.

Pending Legislation

A number of bills have been introduced in the 103rd Congress dealing with nonpoint source pollution and wetlands. While certain bills have been referred to the House Agriculture Committee, many other measures are the jurisdiction of other Committees. Rather than attempting to address each piece of legislation in detail, NASDA will review the areas that seem to appear in many of the bills.

Funding & Timeframes — Most CWA bills pending before Congress provide basically provides 10 to 12 years and limited federal funds to manage NPS. The federal government has dedicated over 20 years and a tremendous level of federal funding to control point source pollution. Congress should not expect agriculture and other nonpoint sources to achieve the more complex pollution prevention in a relatively short period of time with few federal dollars. Congress has not funded section 319 at levels necessary to implement programs fully, and with the current budget atmosphere, there is no reason to believe that additional appropriations are forthcoming. Authorizing bills can provide increased spending levels, but the appropriations process tends not to fully fund these programs. When that occurs, the states are left holding the bag. Unfunded federal mandates have put an economic strain on states which they can no longer absorb. And when both the federal and state governments fail to provide the funding necessary, it's the producer who suffers.

Watershed Planning & Site Specific Plan — Many bills establish the concept of watershed-wide planning, an approach which allows for targeting of scarce resources to impaired areas. This concept is a positive approach as long as it encompasses site-specific planning similar to that outlined in H.R. 1440.

Some of the pending legislation provides the flexibility and site-specific planning opportunities that have proven workable in a number of areas, including the New York program explained above. The final CWA product must stress the need for site-specific plans to remain flexible and be based on sound technical and financial assistance. A mandatory hammer approach does not work because the agencies cannot enforce them properly, and mandatory programs create an atmosphere of animosity rather than one of cooperation. As you see with the New York experience, technical and financial assistance in a cooperative fashion is successful, whereas mandatory hammers are not.

Monitoring and State Reports — It is vital that an improved system for monitoring nonpoint source pollution is developed. While it is appropriate to use current information in the immediate term, we must do a better job of monitoring pollution contribution and improvement. Current section 305(b) reports do not provide EPA with information in a standard form which allows for accurate reporting. Current reports, which compare apples to oranges, are incomplete and inaccurate. Since many of the pending bills increases the monitoring responsibilities of the states, and uses that information to determine future requirements, the system must be improved and standardized so that the information is accurate and useable by the states and EPA.

The citizens monitoring provisions outlined in some bills should be completely deleted. Statutory language is not necessary for the public to make comments to states about water quality. In times of

scarce economic resources at both the federal and state levels, funds for monitoring training and education should be provided to the states to improve their monitoring abilities, not used to fund or educate a band of vigilantes who lack the scientific expertise to assess water quality or to properly monitor change. These citizens monitoring provisions do not help the states. In fact, in many cases, the provisions will harm the states abilities to perform their monitoring duties. The House of Representatives recognized that using uneducated volunteers, who may have special interest agendas, is not sound public policy when the body removed volunteer provisions from the National Biological Survey by a vote of 217 to 212. The House realized it should use its own employees rather than empowering a volunteer police force.

Citizen Lawsuits — For nearly two hundred years, only the U.S. government could sue on behalf of the American people. Since the power to sue and to impose federal fines and sanctions is awesome, regulators empowered to file lawsuits are answerable to and supervised by federal officials appointed by the President, with the advice and consent of the Senate. Moreover, they perform their duties via a carefully constructed chain of command and control. Finally, their conduct is constrained and subject to censure through a myriad of laws to ensure that officials behave legally, ethically, and responsibly.

However, over the past two decades, in numerous environmental laws, the power to sue has been delegated to private citizens. Unlike their colleagues in the federal government, those who bring citizen suits — mostly powerful environmental groups — are supervised by and answerable to no one. Only they decide who will sue, why, and how.

The fact that our laws are being applied to private entities and individuals, not by federal officials, but by a handful of lawyers operating in some back room, ought to be of serious concern to all of us. However, if that alone is not enough, consider the drain on the federal treasury. Environmental litigation, using citizen suit provisions, is big business: lawsuits over the Northern Spotted Owl netted environmental groups more than a million dollars.

Furthermore, citizen lawsuits distort public policy. Such lawsuits aren't undertaken by environmental groups simply to ensure that the law is enforced but to change the law. Legislative defeat can be transformed, over time, and before a variety of federal courts, into a judicially-created victory and expanded legal authority.

The use of citizen suits to create new law is well-known in the regulatory community. Many federal bureaucrats, constrained by congressional appropriations for enforcement activities, look to citizen lawsuits to extend their authority. For example, EPA, commenting on new regulation, noted that "[t]he final rule establishes ... requirements that are easy for ... citizens to enforce through citizen suits."

That is exactly what legal scholars, such as Bruce Fein, fear. "The inescapable result [of citizen suits] is a costly and unrestrained growth in litigation against federal agencies, the consequence of which is "to shift policy making from the legislative and executive branches to the judicial branch in a clear circumvention of the political decision-making process."

Some argue that citizen suits are essential tools to goading reluctant regulators into court. Not so! Congress, with its broad and exacting oversight responsibilities, is capable of putting officials on the hot seat over any alleged failure to enforce environmental laws. The citizen suit provision of the nation's environmental laws is an experiment that has failed. It is costing the American people millions of dollars annually, destroying the competitiveness of American businesses, burdening ours courts, all while badly distorting public policy. The time for these lawsuits, like the time for vigilante "justice," has long since passed.

Water Quality Standards — Some bills before Congress modify the water quality standard goals of the CWA. As opposed to the current "fishable and swimmable" standard of the Act, they add a "wildlife" and "social development" criteria to the standard. NASDA cautions Congress against going too far in creating the new standard which becomes the bright line measurement for the watershed management plans in the out years. Bio-assessments tend to be acceptable indicators of potential problems, but they are not appropriate for regulatory purposes. We must not overburden economic production with costly practices simply for an arbitrary "social" standard, and we must remember that the Endangered Species Act is designed to protect such species. While wildlife habitat provides some indication of water quality, Congress should not move too far in that direction.

Conclusion

Mr. Chairman, thank you for the opportunity to participate in this very important hearing on nonpoint source pollution, wetlands and reauthorization of the Clean Water Act. In order to reduce complex and diverse nonpoint source pollution, a commitment of time and resources is necessary, similar to the 20-year commitment our country has made to eliminating point source pollution. However, management of this problem will require a different approach than that of point source pollution because, unlike point source pollution, NPS pollution is primarily a weather-related phenomenon that can be managed, but not feasibly eliminated. NPS pollution is caused by the inadvertent discharge of pollutants from a wide variety of society's most essential activities. Agricultural operations, along with urban, construction, septic and natural sources, require a comprehensive and coordinated management strategy, much of which is already in place, but in many cases inadequately funded. The NPS management programs in the CWA should be reasonable, voluntary, and based on incentives, education and technical assistance.

I'll be happy to answer any questions you may have.

Statement of Judy Olson
President, National Association of Wheat Growers
On Behalf of the Clean Water Working Group
Before the
Subcommittee on Environment, Credit and Rural Development
House Committee on Agriculture
Nonpoint Source Pollution on Agricultural Lands
March 23, 1994

Mr. Chairman and Members of the Subcommittee:

My name is Judy Olson, and I am president of the National Association of Wheat Growers. My husband and I have raised wheat, barley and lentils in the Palouse region of Washington State for the past 20 years. Today I am speaking on behalf of the Clean Water Working Group, comprised of 37 agricultural and soil and water conservation organizations.

We appreciate the opportunity to comment on legislation regarding nonpoint source pollution on agricultural lands. I would like to begin with an explanation, and an illustration, of the basic principles which the CWWG believes should be embodied in Clean Water Act amendments to be considered by the Congress. And then I will offer several specific comments on legislation pending before the Committee on Public Works and Transportation.

Better identification of impaired watersheds and better programs to manage sources which have been associated with impaired water quality are important goals of Clean Water Act amendments. Where this is already occurring, and where impairment has been specifically related to agriculture, farmers have been willing participants in cooperative watershed projects. This fact is exemplified by ongoing efforts in the state of South Dakota to reduce sediment loadings in the Bad River watershed. Landowners

are voluntarily adopting best management practices on cropland (specifically wheat) and rangeland, such as rotational grazing and conservation tillage. Local, state and federal agencies are cooperatively providing landowners with the technical assistance and encouragement they need to address locally identified sedimentation problems. The landowners' efforts to reduce nonpoint source pollution in the Bad River watershed will lessen the need for constructing downstream dikes to control water flow in the river necessary for power generation. The proposed dikes are estimated to cost $30-40 million, and the upstream success with BMP installation and resulting sediment loading reductions is an outstanding example of the cost effectiveness of cooperative watershed projects. Only $1.4 million has been spent over the last four years in providing technical assistance, education and cost-share assistance in the watershed, and these efforts have gained the participation of 80 percent of the landowners in the Plum Creek Watershed, the 160,000 acre target area of the Bad River Watershed being addressed at this time. This level of participation mirrors participation rates in cooperative projects established across the country under USDA's Water Quality Initiative and the Rural Clean Water Program over the past decade.

The Bad River Water Quality Project will serve as a model for addressing other problem watersheds in the state of South Dakota. Other projects will continue to focus on low-cost management improvements upstream in order to achieve broad landowner participation, while avoiding more expensive water quality remedies

downstream. These activities will take place without new mandates from the federal government, and over the next decade water quality officials in South Dakota are confident that impaired watersheds will be assessed and treatment well underway without new federal directives to do so.

The Bad River Project and others like it will be based on the important principles of targeting resources to priority impaired watersheds, working partnerships between private landowners and government agencies, voluntary participation, site-specific planning and respect for private property rights. These principles are the key to success in putting agricultural nonpoint source programs in place, and are strongly endorsed by the Clean Water Working Group.

The primary limiting factor for more accelerated progress in the Bad River and other projects like it across the country is resources, and not good faith. We believe that Clean Water Act amendments should improve nonpoint source programs which will enable the "good actors", like the landowners in the Bad River watershed, to make the management changes necessary to address nonpoint problems identified with agriculture. Making adequate resources available to states to develop and implement their 319 programs is essential to achieving the goal of improving watershed planning and involvement of landowners - the "stakeholders" - in the watershed planning process. Increased 319 funds should be directed toward improving technical assistance and education programs in the states. Cost-share assistance should also be made

availabe to individuals who are implementing new and costly management practices.

H.R. 3948 would authorize higher funding levels for both 319 programs and State Revolving Funds, and we support these important provisions. But we have many concerns with the bill as introduced, which include the following:

(1) The CWA "goal line" for water quality is moved to potentially unachievable levels by requiring that all waters, including groundwater, be "drinkable", as well as fishable and swimmable.

(2) Best management practices for agricultural nonpoint sources appear to be mandated in all areas, whether waters are impaired or not. We believe that scarce resources and efforts should be directed to the minority of waters which have been found to be impaired.

(3) State nonpoint source programs are inflexible and required to conform to EPA Guidance, which emphasizes control and source reduction, rather than effective management. The EPA Guidance would likely resemble Guidance to States recently put into place under Coastal Zone Act Reauthorization Amendments. The Guidance limits the flexibility of States and landowners to respond with local solutions. Landowners will be able to respond more effectively by cooperating with USDA's Soil Conservation Service, state and regional agencies and research institutions to implement management systems which are appropriate to their specific location. These agencies should provide technical guidance for

site specific plans on agricultural lands - and not the EPA. In addition, USDA and state programs which have already resulted in the installation of best management practices, including conservation compliance plans, must be credited before setting new requirements for producers.

(4) Agricultural producers are required to implement additional BMP's every 5 years if water quality standards are not achieved. Such a mandate would not allow adequate time for many BMP's to yield measurable water quality benefits. In addition, non-attainment is virtually assured if all waters must meet the "drinkable" test, or if we misdiagnose the problem by failing to consider natural background levels. This means that adoption of additional practices and measures would be a never-ending round of increasingly stringent requirements to come into compliance.

(5) The bill should provide that deadlines for states and agricultural producers be adjusted in the event of appropriations shorfalls, to avoid the imposition of unfunded mandates.

(6) Rigid antidegradation and other provisions will serve to stifle economic development in rural America.

(7) Expanded enforcement provisions of H.R. 3948 should not apply to agricultural nonpoint sources.

A more complete discussion of the CWWG's concerns with H.R. 3948 is contained in the attached letter to the chairman of the Committee on Public Works and Transportation. Also attached to the testimony is the Principles Statement of the CWWG with regard to Clean Water Act amendments, which was developed last year.

In closing, the CWWG encourages the Congress to include improvements in national wetlands policy in CWA amendments, and our specific recommendations will be discussed by the next witness.

Thank you for your consideration of our views, Mr. Chairman, and I will be pleased to respond to questions at the appropriate time.

(Attachments follow:)

March 16, 1994

The Honorable Norman Y. Mineta, Chairman
Committee on Public Works and Transportation
U S. House of Representatives--2165 RHOB
Washington, D C. 20515

Dear Mr Chairman:

The undersigned agricultural, agribusiness, and soil and water conservation organizations would like to offer comments for the Committee's consideration as you prepare to deliberate H.R. 3948, "The Water Quality Act of 1994."

Our goal is to help craft policies which permit agricultural producers to seek intended water quality benefits and remain profitable while doing so. Given limited resources in both agriculture and government, environmental policies will be better served if government acts in partnership with agricutlural producers instead of as a command-and-control regulator.

The attached review of H.R. 3948 briefly identifies *concerns, questions and potentially beneficial features* based upon these important considerations. In an effort to be responsive to indicated Committee deadlines, our comments at this point are necessarily preliminary. Major concerns identified to date include:

(1) significant ***change in CWA goals***;

(2) apparent, ***mandatory regulation of all agricultural producers***, regardless of water quality levels;

(3) ***emphasis on control and source reduction***, rather than effective management, in EPA guidance for NPS pollutants without provisions for USDA input;

(4) unclear, and potentially ***unworkable, time lines***;

(5) ***lack of safeguards against unfunded mandates***;

(6) failure to address ***wetlands reform*** and ***serious private property rights*** questions; and

(7) possible ***threats to rural economic development***.

We are continuing to work to gain a better understanding of H.R. 3948, in the hope that we may provide for the Committee's consideration more informed and complete recommended improvements in the near future to resolve these and other concerns. We stand ready to discuss the intended workings of the bill and elaborate upon our concerns.

We would again urge that subcommittee markup be deferred until after the Easter recess so that agriculture and other interested groups can provide constructive input on a more informed basis. We look forward to working with you in the coming weeks.

Respectfully Submitted,

Agricultural Retailers Association
American Farm Bureau Federation
American Feed Industry Association
American Sheep Industry Association
American Soybean Association
Farmland Industries, Inc.
National Agricultural Chemicals Association
National Association of State Departments of Agriculture
National Association of Wheat Growers
National Cattlemen's Association
National Corn Growers Association
National Cotton Council
National Council of Farmer Cooperatives
National Farmers Union
National Milk Producers Federation
National Pork Producers Council
National Potato Council
National Turkey Federation
National Water Resources Association
The Fertilizer Institute
United Egg Producers
United Egg Association
U.S. Rice Producers Group

Attachment

cc: The Honorable Bud Shuster, Ranking Minority
The Honorable Douglas Applegate, Chmn
Subcommittee on Water Resources & Environment
The Honorable Sherwood Boehlert, Ranking Minority
Subcommittee on Water Resources & Environment
Public Works and Transportation Committee Members
The Honorable E. "Kika" de la Garza
The Honorable Pat Roberts
The Honorable Tim Johnson
The Honorable Carol Browner
The Honorable Robert Perciasepe
The Honorable Mike Espy
The Honorable James Lyons
Tom Hebert, USDA
John Burt, SCS, USDA

Attachment, March 16 Mineta Letter

HR 3948, WATER QUALITY ACT OF 1994
Agriculture's Major Concerns

- *CWA Water Quality 'Goal Line'*: The CWA 'goal line' for water quality is moved to potentially unrealistic and unachievable levels, through (1) the addition of "drinkable" and "ground water" to goals, and (2) increased rigidity and requirements in the criteria and standards process. [Sec. 101(b), p.4][1]

- *All Farmers Regulated*: Best management practices (BMP's) for agricultural nonpoint sources (NPS) appear to be mandated in ALL areas, whether waters are impaired or not. Scarce resources and efforts should be directed to the minority of waters deemed to be impaired. [Sec. 311(b)(2), pp. 50-1]

- *EPA Guidance*: The EPA guidance document for NPS pollutants emphasizes control and source reduction, rather than effective management. It appears to default to CZMA management measures already developed by EPA. USDA expertise and input are not provided for. [Sec. 311(h), pp.60-1]

- *Compliance Time Lines*: 1) Time lines and associated expectations or requirements as they apply to states and agricultural producers are unclear. 2) Timing of state assessments appear to be incompatable with regional schedules for BMP's. 3) Agricultural producers are required to implement additional BMP's every 5 years if water quality standards are not achieved.
  Both states and agricultural producers need a process which provides sufficient time, flexibility and coordination to enable a successful outcome. It is not possible to evaluate the workability of this bill until time frames and their interrelationships can be better understood and analyzed. [Sec. 311(b), p.51&54-5]

- *Unfunded Mandate Safeguards*: The bill should provide that deadlines for states and agricultural producers be adjusted in the event of appropriations shortfalls, to avoid the imposition of unfunded mandates. While authorization levels for Section 319 and other programs are increased, there are no safeguards in the bill's proposed partnership approach to protect states and agricultural producers if the federal government fails to appropriate sufficient funds. [Sec. 311(b), pp. 50 ff; Sec. 311(f), p.59]

- *Wetlands Reform:* Wetlands reform should be included to address such issues as the definition of exempt prior converted croplands and the need for wetland classification.

- *Private Property Rights:* This bill raises serious private property rights questions that need to be addressed.

- *Rural Economic Development*: Rigid antidegradation and other provisions may serve to stifle economic development in rural America. Agricultural producers and rural businesses must be permitted to adapt and change in order to respond to myriad environmental and other challenges and to remain economically viable. [Sec. 302, pp. 9-15]

[1] Page references applicable to xerox dated March 3, 1994 (11:41 am)

Other Agricultural Concerns & Questions

- *General:* The bill lacks fundamental details critical to evaluating how provisions are intended to operate. Section-by-section analysis, hearings, and discussions with staff will likely be necessary before informed judgments can be made by Committee members or affected interests regarding workability or acceptability of HR 3948.

- *'Top Down' Control & Enforcement:* The bill contains a number of provisions which increase reliance on federal controls and enforcement. It is more appropriate for states to retain a lead role in addressing NPS pollution, with the flexibility to adjust to local needs and conditions. Policies should rely as much as possible on a partnership approach with agricultural producers rather than mandates. [Sec. 309, pp. 29 ff; others]

- *State Water Rights:* Insufficient protection provided.

- *Conservation Compliance Plans:* Not credited. [Sec. 311(b), p. 53]

- *USDA Expertise:* Extensive capabilities and expertise of SCS, other USDA entities, and private sector resources in (1) providing needed technical assistance to agricultural producers, and (2) determining acceptable criteria, standards and practices generally not recognized.

- *Citizen Suits:* As applied to point sources, increases ability to sue for past violations. Also, needs clarifying language to ensure that agricultural production is exempt from citizen suits. Needs provision to provide for mediation or arbitration in lieu of costly litigation as preferable means of resolving disputes involving small businesses. [Sec. 503, p. 93]

- *Citizen Monitoring:* The bill permits states to rely almost exclusively on water quality data collected by private citizens for development of and evaluation of management programs. This is subject to abuse. [Sec. 307, pp. 18 ff]

- *Credit for BMP's in Place:* Agricultural producers should be credited for BMP's already in place in development of site-specific plan. [Sec. 311(b), p. 52]

- *Appeal Rights:* Agricultural producers need to have a means of appealing site-specific plan disputes. [Sec. 311(b), pp. 50 ff]

- *Other:* Arid areas guidance [Sec. 304]; Broadening of state emergency powers [Sec. 503]; Sharp increases in civil and administrative enforcement penalties [Sec. 309]; 'Bounty hunter' provision [Sec 309, p. 34]; Ability to petition EPA to limit or prohibit discharges [Sec. 308(c)]; Point source pollution prevention & toxic reduction action plans [Sec. 313].

Potentially Beneficial Features

- *Sediments, Biological Monitoring, etc.*: Not included. [Sec. 101(b), p.4; 308(e), p. 27]
- *Site-Specific Plans*: Permits agricultural producers to develop site-specific plans, although likely insufficient time. [Sec. 311(b), p.52]
- *Qualifying Programs*: Appropriately recognizes a number of other ongoing programs, but only for "pollutants regulated". Allows state option of petitioning EPA regarding other programs. [Sec. 311(b), pp. 52-3]
- *319 and SRF Authorizations*: Increased. [Sec 311(f), p. 59; Sec. 605, p.99]
- *Watershed Management*: Provides for voluntary watershed planning, with incentives. [Sec. 314, pp. 69-77]
- *Citizen Suits*: Doesn't overturn Gwaltney or target agricultural nonpoint activities. [Sec. 503, p.93]
- *Economic Hardship*: State may establish such a category. However, it appears to offer limited potential benefits. [Sec. 311(b), p.51]
- *Exemptions*: State may exempt a class of activities or areas from BMP requirements. [Sec. 311(b), pp. 51-2]
- *2010*: Goal for attainment may be reasonable, IF other current CWA goals, standards, etc., maintained, and sufficient flexibility and resources applied. [Sec. 311(c), p. 55; Sec. 314, p. 72]
- *Informing Landowners*: State is to demonstrate a means of informing landowners about available assistance. Could also advise landowners about regulatory requirements. [Sec. 311(b), p. 54]
- *Trading*: A study is to be conducted on the benefits of trading between point sources and nonpoint sources in effort to achieve water quality goals in more cost-effective way. Any trading should be voluntary. [Sec. 322, p. 77]
- *Construction Grants*: May be made for innovative and alternative approaches to control of NPS pollution. [Sec. 201, p. 5]

PRINCIPLES STATEMENT OF THE CLEAN WATER ACT WORKING GROUP CLEAN WATER ACT REAUTHORIZATION

In the reauthorization of the Clean Water Act, Congress should adhere to the following principles:

1. The Clean Water Act (CWA) does not stand alone in protecting America's waters from nonpoint source (NPS) pollution. Other ongoing programs at the federal, state and local level must be funded fully, coordinated with and not superseded by the CWA. This includes, in particular, the soil conservation and water quality provisions of the 1985 and 1990 farm acts and the state groundwater and surface water protection programs of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

2. Recognizing the 20-year commitment our country has had to eliminating point-source pollution, success in reducing the more complex and diverse NPS pollution will require similar time and resource commitments. However, management of this problem will require a different approach than that of point source pollution elimination because, unlike point source pollution, NPS pollution is primarily a weather-related phenomenon that can be managed, but not feasibly eliminated. NPS pollution is caused by the inadvertent discharge of pollutants from a wide variety of society's most essential activities.

3. The central focus on NPS management solutions should be a reasonable and voluntary approach based on incentives, education and technical assistance as the primary means of managing NPS pollution.

   - NPS pollution management program should (a) emphasize the protection of water resources and state-designated water uses, including state-designated agricultural uses, and (b) recognize the importance and needs of individual agricultural producers and other landowners affected by the CWA.

   - This approach emphasizes the use of locally designed and applied, economically feasible, site-specific best management practices which do not infringe on private property rights. Implementation of these farm management options over a realistic time frame will further the goal of reaching or maintaining designated uses of water bodies.

   - It is inappropriate to link USDA commodity, conservation or disaster program payments to the success or failure of management programs for NPS pollution authorized under the CWA.

4. Current CWA language contains valuable provisions for NPS management embodied in Section 319. Although this NPS section has been historically underfunded and has been hampered by bureaucratic roadblocks, all states now have approved Section 319 assessments and approved management programs. Within the CWA, it is the preferable vehicle for management of NPS pollution, and changes which occur during CWA reauthorization should reinforce these existing NPS provisions.

   - The proper management of NPS pollution lies in state and local efforts. As such, states should continue to identify and resolve their priority NPS water problems through administration of Section 319 funds. With state oversight and approval, local organizations should continue to carry out these NPS programs. Agencies at the federal and state levels should harmonize objectives and coordinate funding for national and regional NPS management programs.

   - State and local programs should provide for a mix of research, development, education and technical and financial assistance for both planning and implementing actions aimed at achieving state designated uses.

5. Management efforts funded by Section 319 of the CWA should be directed to priority areas based on scientific assessments that identify water bodies with impaired or threatened uses.

   - Priority, as determined by states, should be based on the magnitude of risk to human health, the protection of designated uses, and likelihood of further significant and unreasonable water quality degradation if no action is taken.

   - Strategies should be developed on a hydrologic unit, watershed-wide basis using an approach that includes the consideration of both surface and ground water quality.

   - Programs should focus on cost-effective, site-specific practices for individual operations with flexibility for implementation.

   - In order for Section 319 to work effectively for agriculture, USDA must play a lead role in the delivery of education and technical assistance at the state and local level.

6. An effective and cost-efficient response to water quality problems requires accurate and reliable information on (a) the source, extent, and impact of NPS pollution, as well as (b) the effectiveness, utility and economic feasibility of conservation measures and best management practices.

   - Any Clean Water Act reauthorization should include a strong financial commitment to further research, monitoring and assessment projects.
   - Monitoring should include before and after sampling as well as frequent sampling during storm events and assessment of natural and historic loadings.
   - Scientific research and monitoring projects should follow protocols developed by the US Geological Service and should be conducted on a watershed basis with local and state input.
   - Representative pilot projects aimed at achieving market based incentives on a watershed or regional level should be encouraged.

7 The Clean Water Act Reauthorization should not directly or indirectly create a federal water quality law or program which supersedes, abrogates or impairs state water allocation systems and water rights.

8. Section 319 management programs on federal lands should be developed and implemented by the specific agency statutorily charged with management of the lands in question, rather than by regulatory authorities independent of that agency.

9. It is inappropriate for a reauthorization of the Clean Water Act to provide the authority for citizens suits against individuals participating in NPS management programs.

ENDORSING ASSOCIATIONS:

American Farm Bureau Federation
American Feed Industry Association
American Forests & Paper Association
American Nurserymen
American Sheep Industry Association
American Soybean Assocciation
The Fertilizer Institute
National Agricultural Chemicals Association
National Association of Conservation Districts
National Association of State Departments of Agriculture
National Association of Wheat Growers
National Broiler Council
National Cattlemen's Association
National Corn Growers Association
National Cotton Council
National Council of Farmer Cooperatives
National Farmers Union
National Milk Producers Federation
National Pork Producers Council
National Turkey Federation
National Water Resources Association
U.S. Rice Producers

NCFC, March 16, 1993

STATEMENT OF THE CLEAN WATER ACT WORKING GROUP
TO THE HOUSE AGRICULTURE SUBCOMMITTEE
ON THE ENVIRONMENT, CREDIT AND RURAL DEVELOPMENT
REGARDING WETLANDS PROVISIONS OF THE CLEAN WATER ACT
REAUTHORIZATION

Presented by
Bob Stallman, President, Texas Farm Bureau
and Member of the AFBF Board of Directors

March 23, 1994

Thank you, Mr. Chairman. My name is Bob Stallman. I am president of the Texas Farm Bureau and a member of the American Farm Bureau Federation's Board of Directors. I am representing both organizations here today as well as the Clean Water Act Working Group. We appreciate the opportunity to speak to the need for wetlands legislation within the Clean Water Act. Much of agriculture has endorsed and continues to support H.R. 1330 by Representatives Hayes and Ridge. We also appreciate Chairman de la Garza's efforts to become involved in this important issue. He has also stated his desire to work with us on the many needed reforms to wetlands policy.

Numerous changes are needed to wetlands policy. Central to the issue, we believe, is the need to protect private property rights. 75 percent of wetlands are on private property. Landowners should not have to bear the sole cost of wetlands protection for society at large. Congress should require compensation of landowners if restrictive government regulation reduces the value or use of private property.

The Soil Conservation Service must play the critical role in identifying wetlands on agricultural land. With the expertise of SCS personnel in areas such as soil and wetlands science, as well as that agency's long history of working in

cooperation with agriculture, we believe the SCS should be the sole agency that delineates wetlands on agricultural land.

Given the highly technical, but sometimes subjective, nature of wetlands delineation, Congress should establish a training and certification program for all wetlands delineators. This coupled with an appeals process that is subject to judicial review would force more integrity and accountability into the wetlands delineation process. However, we are opposed to third party involvement in appeals proceedings as contained in H.R. 3465. (Studds-de la Garza)

We believe that national wetlands policy must include a classification system for wetlands functions and values. All wetlands do not share the same ecological value or perform the same functions. The degree of regulatory protection should be determined based on the values and functions present.

We are encouraged by language in H.R. 3465 that exempts prior-converted cropland from permitting requirements and that recognizes that they are not navigable waters. However, it is incomplete in its current form. Congress should specifically exclude all prior-converted cropland from both Section 404 regulation and waters of the United States, regardless of the type of crop grown.

We also recommend that so-called "farmed wetlands," land cropped or intensively managed for agricultural production a majority of the time, should not be labeled jurisdictional wetlands. Farmed wetlands are areas that are wet so infrequently that they can be farmed without ditching, tiling or draining. Clearly,

those lands are more suited to agricultural purposes and there is little gained by regulating these areas as wetlands.

There is a need for Congress to strengthen and clarify that normal farming, ranching and silvicultural activities will continue to be exempt from permit requirements. We are concerned with recent developments, specifically limitations on mechanized landclearing and reforestation, that could lead to a narrowing of this exemption. Several years ago, there was a similar attempt to exclude the construction of rice levees from the exemption protecting normal and routine farming activities. H.R. 3465 moves favorably in that direction. In addition to the exemption of water management activities relating to cranberry farming, we also urge you to include similar activities used in the production of rice and aquaculture.

Mr. Chairman, we also have serious concerns about the expansive definition of dredged or fill material in H.R. 3465. Specifically, it appears that this legislation would lead to the regulation of any land-use activity in or near waters of the United States. We believe that this is excessive and unnecessarily broad.

In conclusion, we believe that these suggestions will greatly improve the wetlands regulatory program and reduce many of the inequities and difficulties faced by farmers and ranchers. We look forward to working with you in this effort.

(Attachment follows:)

CLEAN WATER WORKING GROUP

Agricultural Retailers Association
American Association of Nurserymen
American Farm Bureau Federation
American Feed Industry Association
American Forest and Paper Association
American Frozen Food Institute
American Sheep Industry Association
American Soybean Association
Dairymen, Inc.
Egg Association of America
The Fertilizer Institute
National Agricultural Chemicals Association
National Association of Conservation Districts
National Association of State Departments of Agriculture
National Association of Wheat Growers
National Barley Growers Association
National Broiler Council
National Cattlemen's Association
National Corn Growers Association
National Cotton Council
National Council of Farmer Cooperatives
National Farmers Union
National Grain and Feed Association
National Grange
National Milk Producers Federation
National Pork Producers Council
National Turkey Federation
National Water Resources Association
United Egg Producers
U.S. Rice Producers Group
National Turkey Federation

TESTIMONY OF STEVEN N. MOYER,

Government Affairs Director of TROUT UNLIMITED,

Mr. Chairman, and members of the Subcommittee, I appreciate the opportunity to appear today to give you Trout Unlimited's views on the polluted runoff (nonpoint source) and wetlands provisions of pending Clean Water Act (CWA) legislation before the Committee. As you requested, Mr. Chairman, I will give the Subcommittee our views on a bill that we strongly support, H.R. 2543, the *Nonpoint Source Pollution Prevention Act of 1993* (introduced by Representative Oberstar; hereinafter termed the Oberstar bill). Additionally, I will provide our views on the polluted runoff provisions of, S. 1114, the *Water Pollution Prevention and Control Act of 1994* (hereinafter termed the Senate bill), the recently introduced House reauthorization bill, H.R. 3948, the *Water Quality Act of 1994* (hereinafter termed the Mineta/Boehlert bill), and the Clinton Administration's Clean Water Initiative.

Further, I will provide our comments H.R. 3465, the *Wetlands Protection and Management Act*, introduced by Chairmen Studds and de la Garza (hereinafter termed the Studds/ de la Garza bill). Additionally, I will give our views on a bill that we strongly support, H.R. 350, the *Wetlands Reform Act*, introduced by Representative Edwards (hereinafter termed the Edwards bill), and a bill that we strongly oppose, H.R. 1330, the *Comprehensive Wetlands Conservation and Management Act*, introduced by Representative Hayes.

Finally, I will comment on a bill that we oppose, H.R. 1440, the *Site-Specific Agricultural Resource Management Act of 1993,* introduced by Representative English

Trout Unlimited is a national fisheries conservation group dedicated to the protection and restoration of our nation's trout and salmon resources, and the aquatic habitats that sustain these resources. TU has over 75,000 members in 445 chapters in 38 states. Our members generally are trout and salmon anglers who contribute large amounts of their personal resources into aquatic habitat protection and restoration efforts. Our members frequently rely on provisions of the Clean Water Act to protect habitat in their local waters. TU considers the Clean Water Act to be the Nation's single most important law for protecting and restoring trout and salmon populations. Strengthening and improving the CWA, especially its polluted runoff prevention and wetlands provisions, is TU's highest legislative priority in the 103rd Congress.

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I also serve as the Chair of the Polluted Runoff Workgroup of the Clean Water Network. The Network is a collection of over 450 organizations of diverse interests-- including environmental, fisheries, labor, and religious -- united in the cause of strengthening the CWA. Although the Network has an extensive CWA reauthorization agenda, strengthening polluted runoff prevention and wetland protection provisions of the CWA also are two of its highest reauthorization priorities.

A. POLLUTED RUNOFF PREVENTION

Polluted Runoff Is a Major Water Quality Priority

Polluted runoff is the pollution of our waters caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural pollutants and pollutants resulting from human activity, depositing them into the nation's waters. Prominent sources of polluted runoff include sediment from timber harvest (and supporting road construction) operations, manure and pesticides from agricultural activities, and sediment and hydromodification from urban development and highway construction. Polluted runoff kills fish, reduces the biological productivity of our waters, and represents a threat to public health in the form of runoff-born pathogens, such as cryptosporidium, which caused last year's Milwaukee drinking water contamination causing over 400,000 people to get sick.

More specifically, TU and the Clean Water Network are critically concerned about poor status of the nation's fisheries resources. Polluted runoff is a substantial contributing factor to the drastic decline of many of our nation's fisheries:

- Hundreds of our Pacific salmon stocks are in jeopardy of extinction throughout the range of their habitat;

- A number of our other native salmonids are imperiled, threatened or endangered throughout the Intermountain West;

- In all, one-third of all our native freshwater fish species are threatened or endangered and one-fifth of all our aquatic species are now threatened; and

• Our once world class salmon fishery of the Pacific northwest is on the verge of extinction, threatening what once was only a few years ago a one billion dollar enterprise.

This Committee has played a major role in enacting environmentally-sound conservation programs through the Farm Bill legislation of 1985 and 1990. Now we urge the Committee to make polluted runoff prevention one of its priorities and support strengthening amendments to the CWA.

Congress Must Provide EPA, USDA, and the States With a Stronger Mandate to Prevent Polluted Runoff

The Problem

Federal programs designed to prevent polluted runoff have not done so effectively to date. The primary tool has been Section 319 of the CWA and its predecessor, Section 208. These programs have financed considerable state planning for prevention of polluted runoff, but little implementation. Specifically, Section 319 lacks any mandatory framework or plan implementation requirements. Furthermore, Section 319 has received inadequate funding. Only now, with an increased priority from the Clinton Administration (Congress approved $80 million for FY 1994 and the Administration proposes a level of $100 million for FY 1995) is Section 319 beginning to approach the level of funding that is needed.

Similarly, the other major set of programs for preventing polluted runoff, the 1990 Farm Bill programs, have suffered from weak implementation and inadequate funding. The Conservation Compliance Program (CCP) for controlling soil erosion has been applied to vast expanses of agricultural land nationwide, but enforcement and compliance appear to be weak in many areas. Two programs with great potential for helping stem polluted runoff, the Wetlands Reserve Program and the Water Quality Incentive Program (WQIP) have been funded minimally, highlighted by zero direct funding for the WQIP program since its enactment in 1990.

Without a strong federal mandate, the states, with a few notable exceptions, have not implemented meaningful polluted runoff programs on their own. The Chesapeake Bay watershed states have begun to take some meaningful steps to control sediment and .

manure polluted runoff. Progress is being made in establishing substantial polluted runoff prevention measures in the watershed which supplies the drinking water for New York City. Wisconsin has been a leader in implementing a watershed-based polluted runoff program. Yet even in these instances, progress has been slow and weak. For example, a recent report from the Wisconsin legislature's investigative branch found that water quality improvements have not been significant despite considerable investment by the state.

The result is that polluted runoff is now responsible for impairment (failure to meet water quality standards or designated uses) for more than half of the nation's impaired waters. Specifically, agricultural runoff accounts for more than 50% of polluted runoff pollution. No wonder, then, that the President highlighted prevention of this problem has one of the highest priorities of his Clean Water Initiative.

The bottom line is that, with the exception of the Coastal Zone Reauthorization Amendments (CZARA) polluted runoff program, Congress has failed to make mandatory requirments of the states, or provide adequate funding, and the states have not gotten the job done on their own.

The Solution

The emerging consensus on how to fix this major water quality problem is for the Congress to amend the Clean Water Act to require states to implement targeted, flexible, yet mandatory polluted runoff programs that dovetail effectively with Farm Bill and other state programs, and provide substantial additional funding through CWA and the Farm Bill programs. These concepts were agreed to by a diverse group of interests in the Water Quality 2000 Report and are common features of the Clinton Administration's CWA position, S. 1114, and the H.R. 2543 and H.R. 3948. Although conceptually similar, the details vary widely. The following summarizes our positions on key points of the proposals.

1. **Amend section 319 to establish targeted, flexible, mandatory polluted runoff program.** The three bills (S. 1114, H.R. 3948, H.R. 2543) and the Administration's proposal all embody this approach. This is the guts of Section 319 reform, and we strongly support it. The key elements include EPA requirements

for the states to establish mandatory polluted runoff prevention programs for waters that are impaired (or threatened) by polluted runoff. This approach is ecologically and fiscally sound because it targets the highest priority on restoring waters and watersheds that need the most attention. Under all four proposals, the major requirement of the state programs would be to steadily reduce polluted runoff from existing sources over a reasonable time period until water quality standards have been achieved. The sound, fundamental concept is for EPA to require states to achieve mandatory water quality results (i.e., meeting water quality standards and designated uses), while allowing states and landowners who have existing polluted runoff sources broad flexibility on the means to achieve these results.

The major difference between the proposals pertains to the number and type of options that EPA would allow the states and landowners to choose to achieve water quality goals. The Senate, Mineta/Boehlert bill, and Administration proposal would allow the states and landowners to choose to implement 1) management measures developed by EPA (probably patterned closely after the CZARA nonpoint guidance), 2) site level plans developed by the landowner, or 3) a state-developed option that would have to be as effective as the EPA management measures.

Conversely, the Oberstar bill would require states and landowners to use only site level plans developed by the landowner (with technical assistance from USDA and the state). Although the site level plans envisioned by the Oberstar bill would certainly be based on the EPA-developed management measures, each plan could be tailored by the landowner and the state to better fit the individual circumstances of the site.

We believe that the single, flexible site level plan option for existing sources in the Oberstar bill is likely to be the most effective proposal because it will ensure landowner involvement, allow site-specific tailoring, yet will provide more understandable, more consistent procedures for states and landowners to follow, as opposed to trying to implement a patchwork of potentially diverse measures required under the various options.

Also, a major distinction between the proposals is that the Mineta/Boehlert bill is the only proposal that requires the states to implement mandatory, phased-in management measures for all

waters throughout the state, not just those that are impaired or threatened. This is a certainly a useful provision which we support. Unfortunately, other provisions (discussed below) of this bill undercut this provision, substantially weakening its polluted runoff provision.

2. Require polluted runoff programs to be watershed-based. We support requiring states to use watersheds as the basis for revised Section 319 programs. The Oberstar bill is the only proposal that would make such a requirement. The other proposals would give states flexibility to do less than full watershed protection.

None of the proposals define a watershed for the purpose of applying the amended Section 319 program. All proposals give the states flexibility to determine watershed definition.

3. Require Mandatory Runoff programs for new sources. An ounce of prevention is worth a pound of cure in terms of water quality as well as human health. Therefore, states should be required to ensure that all new sources of polluted runoff statewide should be required to implement either management measures or site level plans to prevent polluted runoff. This is a common sense requirement that will keep the nation's waters from further degradation. The Oberstar bill and Administration position contain this requirement. The Senate bill does to a degree, but allows EPA and states broad discretion on the breadth of its application. Unfortunately, the Mineta/Boehlert bill has no such provision.

4. Give landowners credit towards their Section 319 requirements for achieving polluted runoff prevention through participation in state and Farm Bill polluted runoff prevention programs. This element is critical to the successful meshing of a reformed Section 319, the Farm Bill programs, and existing state programs. States should be required to determine the pollutants and land areas that have been effectively covered by management measures authorized or funded under the non-Section 319 programs. For example, where a landowner has farm fields which are in compliance with Conservation Compliance Program, the landowner should be given credit for preventing sediment runoff from those lands, but would not necessarily be given credit for controlling pesticide runoff from those lands. The Oberstar and

Mineta/Boehlert bills, and the Administration's position do give credit where credit is due. The Senate bill provides too broad of a Section 319 exemption for those landowners participating in the CCP.

5. **Ensure that the new program is enforceable, contains reasonable deadlines and progress milestones and is tied to achieving water quality standards and designated uses and other relevant water quality goals.** Section 319 must be amended to mandate EPA to require states to have available, and utilize when noncompliance occurs, sufficient authority and mechanisms to enforce the provisions of the new Section 319 program. EPA must review and decide whether or not to approve states' polluted runoff programs, and enforce Section 319 in states that fail to implement the program properly. The Oberstar bill and the Administration's bill contain these provisions. The Senate and Mineta/Boehlert bill contain useful enforcement provisions, but fall short on providing sufficient EPA backup of state enforement and on EPA oversight of state implemetation of the Section 319 program.

Further, to ensure that sufficient progress is being made by states and landowners towards achieving water quality goals, Section 319 must be amended to provide reasonable milestones and deadlines for states and landowners to reach those goals. Following EPA approval of revised state polluted runoff programs, we believe that an 8-10 year deadline for achieving water quality goals is warranted. The Oberstar and Senate bills contain such provisions, as does the Administration's position. However, the Mineta/Boehlert bill fails to make a tie between deadlines and achieving water quality goals, thereby weakening the utility of that bill's entire Section 319 amendment provision.

6. **Protect polluted runoff-impaired groundwaters.** In some areas of the nation, groundwater pollution is a significant cause of polluted surface waters. Therefore, where states determine that groundwater is impaired by polluted runoff sources, then states should be required to target these groundwaters and develop measures to protect them under the polluted runoff provisions of a revised Section 319 program. The Mineta/Boehlert bill includes such provisions. The Senate bill has a similar provision, but allows the states complete discretion regarding whether or not to target such impaired groundwaters. The Oberstar bill does not contain any such provision.

7. **Require Federal agencies to upgrade their polluted runoff prevention programs.** The precipitous declines of salmonid species in the Pacific northwest and the western Intermountain region is due in large measure to polluted runoff and hydromodification and is stark testimony to the need for improved runoff controls on federal lands. We support the Oberstar approach to this task. The Oberstar bill would require the President, on behalf of all federal land management agencies, to promulgate polluted runoff control regulations that would result in full compliance with water quality standards and designated uses within 10 years. Further, the Oberstar bill would require federal agencies to review, and revise as necessary, all permitted activites on federal lands (such as timber sales or mining operations) to ensure that those activites were in compliance with the new regulations. The Senate bill contains provisions similar to these; the Mineta/Boehlert bill does not.

8. **Substantial additional funding is required to implement the new Section 319 program.** All interests who are serious about curbing polluted runoff agree that substantial new money must be provided to EPA, the states, USDA and individual landowners to assist with implementation. We support the Oberstar, Senate, and Mineta/Boehlert bills, all of which propose large increase in Section 319. The Oberstar bill proposes increasing the Section 319 funding authorization level to $500 million in FY 1995. The Mineta/Boehlert bill proposes boosting funding to up to $500 million over a five year period. The Senate bill proposes $600 million by FY 1999, and the Administration proposes $100 million. Further, considerably more funding is required for the Farm Bill conservation programs to help finance the various site level plans and management measures that the revised Section 319 program will require of farmers.

Critics will call a revised Section 319 program an "unfunded mandate." We believe that if Congress strengthens polluted runoff mandates and raises the priority of solving this problem, then funding will be forthcoming. The Farm Bill conservation programs, such as the WQIP, have withered on the vine because many agriculture groups and Congress have given it a low priority. If the CWA made new polluted runoff requirements of agricultural stakeholders, that funding priority would change. Finally, consider the history of Section 319 funding. In the face of our worst federal budget deficits, Section 319 has risen from zero funding in the late

1980's after its enactment, to $80 million dollars in FY 1994. Was it magic? No. Congress made it a higher priority. We can find the money if we are serious about getting the job done.

Proposed changes to section 319 that we DO NOT support.

Mr. Chairman, you asked us what proposed changes we could not support. The first is not a change, rather it is the option of maintaining the *status quo* on polluted runoff. The second point relates directly to a proposal that is likely to surface during your deliberations on this bill.

- **Do not retain the *status quo* on Section 319.**

Your Committee will likely hear 1,000 reasons for staying the course on Section 319, the most prominent being that Section 319 just needs more time to work. From our perspective, the CWA has seen 20 years of voluntary, weak attempts to address polluted runoff. They have not worked. It is time for major reform that includes the changes that I have outlined above.

- **Do not amend or undercut the CZARA polluted runoff program.**

During the Senate Environment and Public Works Committee markup of the Senate bill, Senator Warner attempted to amend the bill by adding a provision which would have amended the CZARA polluted runoff program for the purpose of allowing states and landowners the additional choices for runoff prevention that are offered in the Senate bill (i.e., site level plans in addition to the EPA management measures).

Even though we do support the use of site level plans, we are strongly opposed to changing course on the CZARA program after the states are more than three full years into implementing it. Changing course now will only delay, probably for several years, on the ground polluted runoff prevention measures that will begin to go into effect in the near future. Furthermore, depending how Congress crafts site level plan requirements, this added flexibility may weaken existing CZARA requirements, reducing protection of coastal zone aquatic resources. This is unacceptable to us, and we urge this Committee to reject similar proposals.

B. WETLANDS PROTECTION

Wetlands provide this nation with a broad array of critical ecological functions from which all Americans derive enormous economic, recreational, and other benefits. Key wetlands functions include flood conveyance, water quality improvement, spawning and rearing habitats for many fish and other aquatic life, breeding grounds for waterfowl, and groundwater recharge. EPA recently found that in 1991, human activities which rely heavily on wetlands such as hunting, fishing, camping, and wildlife photography added approximately $59.5 billion to the nation's economy.

We cannot afford to squander these valuable resources, but we are at a continuing high, unacceptable rate. The most recent, best estimate of wetlands loss is 290,000 acres per year, during the period from 1976-1985, as measured by the US Fish and Wildlife Service's National Wetlands Inventory. This large rate of loss directly threatens all the aquatic fish and wildlife dependent on wetlands, and all Americans who depend on these resources for their livelihoods and recreational pursuits.

We urge this Committee not to be deceived by recent reports of allegedly low, current rates of wetlands loss that some groups are using to discount the magnitude of the problem and undercut the need to strengthen wetlands protection. The National Wetlands Inventory loss estimate is the only comprehensive and reliable estimate that exists. Recent published Corps of Engineers and USDA National Resource Inventory (NRI) reports do not accurately reflect the amount of wetlands currently being lost in the US, rather these reports only provide a partial accounting. The NRI loss statistic -- 29,000 acres of wetlands converted to non-wetlands in 1991 -- only focuses on a subset of wetlands losses. The NRI was never designed, or intended, to provide estimates of national wetlands loss. In fact, the NRI data intentionally omits nearly 30 percent of the U.S. and fails to examine even the most significant coastal wetland losses.

Similarly, the Corps' loss statistic -- 13,000 wetland acres in 1992 -- only accounts for some of the direct impacts the Corps authorized in 1992. It does not account for the literally thousands of acres of wetlands destroyed under loopholes, such as the ditching and draining loophole (700 acres of valuable pocosin wetlands were destroyed in just one instance under that loophole). The Corps figure also does not reflect frequently large secondary impacts (in one case,

a 0.07 acre wetland fill had secondary impacts on 240 acres of pristine wetlands), and it does not reflect unauthorized discharges and the possible 40,000 discharges authorized, without notice to the Corps, under general permits. The U.S. Fish and Wildlife Service figure is the only comprehensive and reliable estimate of wetlands loss we have.

We urge the Committee -- and Congress -- to step back from the controversies and reaffirm the critical role that the wetlands program, the §404 program, plays in attaining the central goal of the Clean Water Act -- to restore and maintain the integrity on the Nation's waters. We also urge the Committee to assist our efforts in securing and applying more resources to §404 wetlands delineations, mapping, outreach and education, and to the program in general, and thereby make its value and importance more understandable to everyone. Finally, we urge Congress to support the nation's burgeoning passion to protect wetlands by expanding the reach of regulated activities under §404 and by incorporating the additional strengthening amendments highlighted below. These are progressive and necessary changes if we are ever to achieve the goals of the CWA and end the long history of wetlands loss in this nation.

Pending Legislation

H.R. 350 and S. 1195, "The Wetlands Reform Act"

TU strongly supports H.R. 350, the "Wetlands Reform Act," introduced by Representative Don Edwards (D-CA) on January 5, 1993. This bill, identical in content to S.1195 introduced by Senator Barbara Boxer (D-CA), presents a balanced solution to the wetlands issue. Importantly, H.R. 350 would finally close the existing loopholes in the scope of Section 404 of the Clean Water Act, by specifically regulating most activities that destroy and degrade wetlands, not just the discharge of dredge and fill material. The bill also ensures that automobile tires and other trash are considered fill and cannot be dumped into wetlands without a §404 permit. These changes would fully satisfy our strong desire to see that the scope of regulated activities is expanded to address most activities that destroy wetlands.

H.R. 350 also explicitly includes wetlands in the Clean Water Act goal statement. The bill proclaims a strong, clear national policy to preserve the quantity and quality of the nation's wetlands and to

restore wetlands that have been degraded, reaffirming Congress's commitment to protect wetland resources. It also incorporates the regulatory definition of wetlands into the Clean Water Act.

H.R. 350 is a balanced bill in that it addresses the concerns of the regulated community as well as responding to the need for greater environmental protection. For example, H.R. 350 addresses the concerns of the agriculture and development communities regarding permitting delays by featuring a new expedited permitting procedure, requiring the processing of small-scale permits within 60 days. The bill also improves permit processing by requiring the General Accounting Office to perform a needs assessment to determine whether EPA and the Corps require additional personnel and resources to expeditiously conduct wetlands delineations and process permit applications. H.R. 350 provides funds to implement the Corps wetlands delineation training and certification program, and it expedites completion of wetlands maps by the FWS National Wetlands Inventory. These changes will facilitate faster wetlands delineations and provide permit applicants with more certainty.

H.R. 350 addresses many of the concerns raised by the agriculture community. It reaffirms current statutory exemption for normal, ongoing farming, ranching and silvicultural activities. The bill also serves the agricultural community by putting in place through legislation existing exemptions for the agricultural community and by exempting normal farming activities on wetlands used for crop production at least once every five years.

Finally, the bill encourages landowners to conserve wetlands. It creates tax incentives for wetlands preservation and for compatible uses of wetlands. Collectively, these provisions strike an admirable balance between the concerns of the regulated community and the environment. If enacted into law, the Edwards bill will make the §404 program more efficient, fairer, easier to use and more protective of the environment.

H.R. 3465, "Wetlands Protection and Management Act"

TU supports many of the provisions of H.R. 3465, the "Wetlands Protection and Management Act, introduced by Chairmen Gerry Studds and E. (Kika) de la Garza on November 8, 1993. We believe that, with strengthening amendments, the bill can make a significant

contribution to the overall goal of preserving, protecting and restoring our nation's wetlands.

H.R. 3465 would, like H.R. 350, finally ensure that the majority of activities that destroy and degrade wetlands would be explicitly regulated by the Clean Water Act. It would expand the scope of regulated activities to include draining, dredging, excavating, channelization, flooding, pumping, driving of pilings, placement of obstruction, mechanized land clearing, ditching, diversion of water, and other actions that destroy or degrade wetlands and other waters. By providing comprehensive protection for wetlands, this provision would further the goal to "restore and maintain the chemical, physical and biological integrity of the Nation's waters."

The Studds/de la Garza bill would end the spurious debate about the wetlands protection mandate by clarifying that it is national policy to "protect the quantity and quality of the Nation's remaining wetland base and restore wetlands that have been degraded." The bill also strengthens this mandate by adding congressional findings of the economic and ecological functions and values wetlands provide, and by incorporating the regulatory definition of wetlands into the Act.

The bill will help increase awareness of wetlands in a number of ways. It will ensure that wetlands delineations will be based on good science by forbidding changes to the 1987 Corps manual until the NAS study is issued, except changes to reflect regional variations (and these interim changes must be reviewed after the NAS study is issued). In addition, H.R. 3465 provides funding to states to assist in the development in wetlands conservation plans (that map wetlands and encourage consideration of wetlands in land use planning), establishes a wetlands delineator training program, and an education and outreach program.

Finally, the Studds-de la Garza bill addresses <u>many</u> of the agriculture community's concerns. It exempts prior converted cropland (pc) from regulation, but it adopts a scientifically defensible definition of pc areas. The bill also adds haying, grazing, fence building, and activities associated with cranberry farming to the list of statutory exemptions from §404 regulation. Like H.R. 350, the Studds/de la Garza bill exempts certain artificial wetlands from regulation, such as irrigation ditches in uplands. Significantly, H.R. 3465 also transfers responsibility for wetlands delineations on agricultural lands to SCS and adjacent nonagricultural lands. The bill defines agricultural

lands far more broadly than the Clinton Administration did in its Memorandum of Agreement of Agriculture (giving SCS responsibility for wetland delineations on agricultural lands and certain related areas). Alarmingly, H.R. 3465 broadly defines agricultural lands to include "pasture land, hay lands, [and] range lands," which SCS defines as all non forested areas grazed by herbivores regardless of whether they are domesticated (this definition would, for example, deem suburban yards grazed by deer to be range land). To alleviate concerns over this vast expansion of SCS's responsibilities, the definition of agricultural lands should be narrowed to agricultural land that is intensively managed or lacking in natural vegetation, and SCS should not be given responsibility over non-agricultural lands.

There are several other key respects in which H.R. 3465 needs strengthening amendments. First, and foremost, by authorizing the Corps to issue general permits for categories of water, the bill would legalize nationwide permit 26 (NWP 26) --the infamous loophole through which countless acres of prairie potholes and other valuable isolated and headwater wetlands have been destroyed-- and would open the door for the Corps to issue more general permits to write-off types of allegedly "low value" wetlands. Congress has never authorized, and must not authorize now, general permits which blanketly allow discharges into certain types of wetlands. Wetlands often serve a myriad of functions and cannot be accurately categorized as high or low value. The wetland that provides valuable flood storage, for example, may not provide good duck habitat. Whether such a wetland is a low or high value wetland depends upon individual perspective (e.g., are you a duck hunter or a nearby homeowner?). Moreover, classification is not necessary. The Section 404 permitting process already contains the flexibility to allow regulators to more intensely review particularly destructive activities or proposed discharges in sensitive wetlands. Accordingly, the devastating general permits for categories of waters provision must be deleted.

H.R. 1330, "The Comprehensive Wetlands Conservation and Management Act of 1993"

TU strongly opposes H.R. 1330. H.R. 1330, introduced by Representative Jimmy Hayes (D-LA), is designed to weaken, and for more than half the nation's existing wetlands, actually eliminate federal protection. The bill completely rewrites Section 404 of the Clean Water Act and disregards the 20 years of experience the

agencies and the regulated community have acquired during its implementation. If H.R. 1330 is enacted, §404 would be rebuilt from scratch to develop a completely new regulatory program, creating years of confusion for wetlands regulators and the regulated community alike.

The flaws in H.R. 1330 are almost too numerous to list, and, thus, we will only focus on some of the most major deficiencies of H.R. 1330 in this testimony.

H.R. 1330 eviscerates the Section 404 program by eliminating the Section 404(b)(1) Guidelines -- the heart of the Section 404 program -- and terminating EPA's role in the Section 404 program. Despite the flexibility in the §404(b)(1) Guidelines, the bill would replace the §404 permit program with a policy of "wetland triage" that ranks wetlands into high, medium and low value categories with the latter two categories receiving little or no protection. This completely fails to recognize the natural diversity of function which wetlands provide, by essentially setting up an arbitrary system of comparing apples and oranges and determining that one is more important than the other.

H.R. 1330 would strip away protection under the §404 program for half of the nation's wetland acres. By replacing the scientific definition of wetlands (which all four agencies use) with an arbitrary and politically motivated standard, the bill would define wetlands so narrowly that large tracts of even the Everglades and the Great Dismal Swamp would no longer be considered wetlands.

Furthermore, the bill imposes astronomically new financial liabilities that would bankrupt the federal treasury by *requiring* federal acquisition, at the discretion of the landowner, of so-called "high value" wetlands. A conservative estimate by the Congressional Budget Office suggest a $10-$45 billion cost for the land acquisition components alone of H.R. 1330. This payment provision is completely unnecessary in light of the protection already provided by the Fifth Amendment of the Constitution.

In short, H.R. 1330 converts the existing §404 regulatory program to little more than a costly "rubber stamping" program for issuing wetlands destruction permits. This bill is a disaster for wetlands, and a disaster for all of us.

H.R. 1440, The Site-Specific Agricultural Resource Management Act of 1993

H.R. 1440 provides that under the auspices of the Soil Conservation Service (SCS), farmers may develop and implement integrated resource management plans that coordinate all conservation and environmental program requirements on agricultural lands.

The premise of the bill - that farmers are being required to meet conflicting conservation plans - is simply not true. Most farm plans address different resources. Even if farmers are faced with conflicting plans, farmers are not helpless. Farmers can choose to withdraw from programs that require plans, since most conservation plans are voluntary.

Among its most serious flaws is that fact that H.R. 1440 grants broad immunity to farmers from all conservation and environmental requirements if producers implement integrated resource management plans. Why is this granting farmers a shield from all environmental and conservation requirements a bad idea?

- There is no need for a shield. If integrated resource management plans are intended to meet existing environmental criteria, the shield is unnecessary and farmers have nothing to fear from enforcement of environmental laws.

- Integrated resource management plans are intended to address protection for resources, such as soil, water and habitat. Resources do not easily translate into laws. For example, a plan that protects habitat might encompass local, state and federal laws, the range of which might be unknown to any one agency. To provide liability protection from all of these undermines the authority of each level of government to provide environmental and public health protection to its citizens.

- H.R. 1440 does not require plans to change, even if environmental laws and requirements are modified. Thus, a farmer clearly out of compliance with future environmental laws, such as an amended Clean Water Act, or present laws now being implemented, such as the Coastal Zone Act Reauthorization Amendments of 1990, will be exempted from them, as long as he or she is implementing a comprehensive farm management plan.

- SCS is not required to develop plans that meet existing environmental laws. SCS may establish its own criteria and standards. The plan requirements mandate that economic considerations be at least as important as environmental concerns. Moreover, with the shield provision in place, SCS is exempt from any accountability requirements.

It is not true that without a liability protection provision that farmers will fail to develop integrated resource management plans. For many farmers, the idea of one-stop shopping makes developing such plans an attractive option.

If the intent of the bill is to add a water quality component to existing USDA plans, there is already an existing program that gives SCS a lead role in developing comprehensive plans, without raising very serious conflicts of jurisdiction, authority and standard-setting. That program is the Water Quality Incentives Program and it is widely available to farmers.

In short, H.R. 1440 precludes the possibility of farmers facing the same environmental laws as everyone else. We oppose H.R. 1440..

Conclusion

In his State of the Union message, President Clinton urged Congress to send him a "revitalized Clean Water Act." Aquatic resources cannot wait any longer for this to happen. I am confident that this Committee knows the urgency of the task. We urge the Committee to step up to the task and support strengthening the CWA.

Statement of the National Association of Conservation Districts
and the
National Association of State Conservation Agencies
Before the
U.S. House of Representatives
Committee on Agriculture
Subcommittee on Environment, Credit and Rural Development
March 23, 1994

Mr. Chairman, members of the Subcommittee, I am Gerald Talbert, Director of Policy and Programs for the National Association of Conservation Districts, and I am here today on behalf of America's nearly 3,000 conservation districts and the 54 state and territorial agencies that provide administrative and policy oversight for their programs. Thank you for the invitation to appear before this subcommittee to share our views on the impact of wetlands and nonpoint source pollution programs on agriculture and conservation efforts.

Conservation districts are independent, special purpose units of local government that coordinate and carry out comprehensive, natural resource management programs that address forest and rangeland management, wetland protection and enhancement, agricultural and urban erosion and sediment control, wildlife and fish habitat management, and nonpoint source pollution prevention and abatement for the protection of ground and surface water quality.

For nearly 60 years, conservation districts and state conservation agencies have worked closely with other state and local agencies in carrying out comprehensive conservation and resource management programs at the local level. We have also forged strong partnerships with federal agencies such as the USDA Soil Conservation Service, Extension Service and Agricultural Stabilization and Conservation Service, and more recently with the U.S. Fish and Wildlife Service and the Environmental Protection Agency to provide technical and financial assistance to help farmers, ranchers and other land managers preserve and protect our land and water resources. Today, there are a number of issues and initiatives being debated that could have a significant impact on the health of these crucial and much-needed services and programs.

NACD is pleased to see that a number of the bills being considered by Congress advocate watershed-based planning and implementation of wetlands conservation and nonpoint pollution abatement efforts. Conservation districts have long endorsed this approach as a way to bring together the various stakeholders to work cooperatively in managing and protecting the resource base. It also means that we will not look at any particular resource by itself, but rather, treat an entire watershed as an integrated and interdependent system.

We believe there are several important considerations that must be kept in mind in order to fine tune and adjust the various initiatives of concern to this subcommittee today. It is important that all of these programs emphasize the incentive-driven approach, combining education and technical and financial assistance as the primary vehicles for implementation. While we believe that there is a place for regulatory mechanisms in these programs, we do not believe that regulation should be the primary approach in watershed protection and management.

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Conservation districts have a long history of working with the agricultural community in successfully carrying out cooperative, incentives-based programs. It is important that we develop programs that do not unnecessarily restrict agriculture's ability to remain competitive and productive. Therefore, it is critical that these programs emphasize flexibility—allowing local people to tailor programs to their specific needs.

We must also keep in mind that the next generation of the Farm Bill is right around the corner. In crafting these water quality and wetlands programs we need to ensure that they will provide linkages to the present and next Farm Bill. It is crucial that all these efforts be integrated and complementary to ensure that the agricultural community can carry out what is required of it while remaining productive and competitive.

The subcommittee requested comments on specific bills pending in the House at this time. With respect to HR 3465, introduced by Representative de la Garza, NACD is generally pleased with the provisions of this bill. We have long endorsed an enhanced role for states in carrying out federal wetlands protection policies. We also appreciate the need for good science in developing a sound wetlands delineation formula. We hope that the National Academy of Science's study will provide a good basis from which to establish a scientifically credible delineation formula. Since the United States is such a geographically diverse nation, the allowance for regional variations in hydrology, soils, and vegetation will be an important component in developing a balanced approach to wetlands protection.

We also laud the bill's provision to develop materials and conduct training courses for consultants and state and local governments to better explain the guidelines for delineating wetlands. NACD has recommended on several occasions that all agencies with wetlands responsibilities should undertake concerted outreach efforts to educate federal employees and cooperating state and local agencies, including conservation district employees, on delineation methods and procedures. We also believe that educational outreach efforts to individual land owners, coupled with technical assistance to help manage wetlands, will do much to resolve the controversy surrounding wetlands conservation.

NACD also supports efforts to streamline the 404 permit process and to provide an administrative appeals channel. We believe that this will help strengthen the 404 program and help to avoid many of the legal entanglements that result from permit issuance and denials.

The issuance of swampbuster general permits under appropriate circumstances is also a desirable feature of this bill. This would also help to ease some of the workload in administering the program. We also endorse the bill's provision to exempt prior converted croplands, and other lands SCS determines to be exempt from Swampbuster, from Section 404 jurisdiction.

HR 3465 also exempts other waters and areas from 404 jurisdiction. Areas such as upland nontidal drainage and irrigation ditches, artificially irrigated areas, artificial lakes or ponds used for stock watering or irrigation, artificial stormwater detention areas and artificial sewage treatment areas and others would not be subject to 404 jurisdiction. NACD supports all of these changes, as well as the exemptions for normal farming, silviculture, and ranching activities.

NACD Strongly supports state leadership in developing wetlands conservation programs with conservation districts as local or watershed management entity. Enhanced state leadership would improve local and regional input and coordination through the expanded use of information and education, and technical and financial assistance.

Another bill referred to this subcommittee, HR 138, introduced by Representative Combest, seeks to ensure fairness in delineating wetlands across the nation. In particular, this bill would require wetlands delineation criteria to apply uniformly to all areas, including playa lakes, prairie potholes, pocosins and vernal pools. While NACD believes that we must have equitability in our wetlands protection programs, we also believe that states should be permitted flexibility in providing both more stringent criteria where appropriate, and less stringent criteria when evidence can be provided to support their use.

NACD has gone on record recommending that our national wetlands policies and protection efforts be restructured to provide a clear, concise, and fair approach to the management and protection of the nation's remaining wetlands. A standard and consistent national definition and method for wetland delineation needs to be developed. However, a workable delineation manual also must allow for regional and state-level variations in how wetlands are delineated for federal jurisdictional purposes.

Although HR 138 has many merits, we believe that HR 3465 is the preferred vehicle for developing a sound and balanced wetlands conservation and management program for the nation.

The actions to implement the goals of the bills we are discussing today will, in a few years, significantly enhance the quality of the rural environment. I would like to point out another opportunity available to start accomplishing the goals of these proposed bills now. HR 3759 provided an emergency supplemental appropriation of $340.5 million to the USDA Soil Conservation Service for "Watershed and flood prevention operations" to repair damages caused by the Midwest floods and California fires of 1993 and "for other purposes." Some of these funds will be used to restore waterways damaged by the fires and earthquake in California, to repair levees in the upper Mississippi basin and to enter land into the "Emergency Wetlands Reserve Program."

We strongly recommend that the Soil Conservation Service use a substantial portion of the remaining funds to help reduce the effects of future floods in the Mississippi basin; to restore noncropped wetlands and establish vegetated stream buffers. There is a large acreage of noncropped, degraded wetlands and former wetlands throughout the basin that could be efficiently restored to fully functioning wetlands. Many of these areas are now pastured or sitting idle. Numerous studies conducted over the past century have documented that the presence of wetlands, when appropriately situated within a watershed, decreases peak flood flows. In addition, establishment of vegetated buffers along streams and other waterways throughout the watershed, besides benefiting water quality, they will also hold back future flood flows reducing downstream peaks while protecting the stream banks.

In addition to the wetlands initiatives discussed above, this subcommittee has a substantial interest in nonpoint pollution control, especially relative to agriculture. HR 2543, introduced by Representative Oberstar, directs states to revise their Section 319 nonpoint pollution management programs to identify target watersheds and prioritize them into five priority groups based on the severity of nonpoint pollution. It also requires states to provide notice to landowners in those priority watersheds that they will have to implement site-level water quality plans. The bill gives states only six months (180 days) to accomplish this after EPA issues program rules. We believe this is far too short a time frame. We also believe the approach taken in HR 2543 is too prescriptive in telling states that they must categorize all waters into five priority watershed groups and notify all landowners in those watersheds.

States must also submit to EPA an implementation program for each target watershed identified above with a schedule to achieve restoration/protection within eight years after program approval. Again, we believe that eight years is an unrealistic time frame to achieve

restoration. Even if all states were prepared to immediately begin implementation of such an ambitious program, it is unlikely that full restoration could be attained within eight years. Experience with nonpoint programs has shown that full restoration of an impaired waterbody could take considerably longer than this time frame. We also believe that the requirement for additional management measures after the eight-year implementation period would be premature—more time should be allotted to see improvements in water quality before requiring additional management measure implementation.

HR 2543 also contains a great deal of detail which, we believe, would be more appropriate for guidance documents and rules that should be issued by EPA. Further, requiring states to prioritize all watersheds and requiring implementation of management measures or site-specific plans for all sources, regardless of their contribution to water quality problems, would place an unreasonable burden on many states.

We are also concerned that the penalties for state noncompliance outlined in HR 2543 would be counterproductive to the working relationships between point sources, nonpoint sources and wetlands interests. Further, denial of new Section 401 and Section 404 permits would tend to fragment those interests rather than enhancing cooperation among these related program elements.

With respect to the citizens' monitoring program that would be established under HR 2543, NACD recognizes the valuable role the public could play in helping to collect monitoring data. However, we feel that it would be inappropriate for such monitoring programs to become an enforcement tool of the state.

The subcommittee has also requested input on HR 3948, introduced by Representative Mineta. NACD's primary interest in this bill is Section 311, "Nonpoint Source Management Programs." NACD is concerned with the ambitious schedule in Section 311. The bill would require that state's address 20 percent of the watersheds within the state during each year of the five-year program period. We believe that many states will have considerable difficulty in achieving this schedule.

NACD is also concerned that the bill would require EPA to develop a new set of "best management practices" for this program. EPA has already developed the management measures guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990. These measures, along with those identified in the Field Office Technical Guides of the USDA Soil Conservation Service should be utilized rather than specifying the development of a new guidance book. In addition, many states have developed nonpoint source best management practice handbooks that could be utilized.

This subcommittee has also requested input on HR 1440, introduced last year by Representative English. For a number of years, conservation districts have been concerned with the increasing number of single-purpose plans required of farmers under federal and state conservation and environmental laws and regulations. In fact, within the Department of Agriculture alone there are as many as fifteen programs requiring different plans, and one single operator may have up to six different conservation or environmental plans to implement.

Even with the best attempts at planning and coordination, there remain times when different program requirements are contradictory and send mixed messages due to the number of plans involved. Further, future legislation such as the reauthorization of the Clean Water and Endangered Species Acts, Safe Drinking Water Act and the 1995 Farm Bill will likely complicate the problem.

NACD strongly supports the concept of holistic natural resource planning and management embodied in HR 1440. We believe the single, site specific plan requirement would help alleviate some of the burdens placed on the land user, as well as the Soil Conservation Service and its cooperating partners. NACD applauds streamlining of the planning process by establishing a single federal agency responsible for working with other federal agencies and land users for the implementation of these integrated resource management plans. In addition to reducing costs, it will probably improve the quality of the plans developed.

By authorizing the Secretary of Agriculture to enter into agreements with other federal, state and local government entities, HR 1440 also promotes increased cooperation and coordination among agencies involved in natural resource planning. Improved coordination and cooperation will also save needed dollars by minimizing duplication, redundancy and administrative costs among different government agencies. In order to provide for local checks and balances in carrying out the purposes of HR 1440, NACD would suggest that local conservation districts be given the opportunity to play a role in plan development and approval.

Of concern to us, however, is the time frame assigned by the bill. The measure provides that, through December 31, 1994, SCS must give priority to developing single comprehensive plans requested by land users, as well as those plans in SCS-designated environmentally critical areas. Although we commend the intent of these provisions, the workload generated by such an effort, combined with Farm Bill conservation compliance deadlines and other program requirements, could easily overwhelm the already overburdened delivery system of SCS and districts. Given the fact that NACD and USDA studies show that substantial increases in technical assistance are needed at the field level, we believe that Congress should approach this new requirement fully aware of the tremendous workload that will be placed on an already overburdened delivery system.

NACD strongly endorses the concept enumerated in HR 1440 and we hope that it will receive due consideration even in the absence of its principal sponsor, Representative English. However, we are constrained to point out that without significant increases in resources to carry out these requirements, this program simply will fall far short of achieving its potential. As we stated earlier, the presumption sounds good on paper, but we must have the resources to implement it. Despite its good intentions, without additional resources to carry it out, it will probably find little support in the field.

Finally, in order for any of these initiatives to be successfully implemented we believe there must be a renewed commitment to conservation and natural resource management programs by both land users and the public. And part of that renewed commitment means increasing the public investment in these programs at all levels of government. We believe this increased commitment should be reflected in part in the form of economic incentives for those land users who voluntarily apply and maintain conservation systems and practices on the land. This approach, which we call "environmental credits," is designed to identify those land users who voluntarily install, manage and maintain conservation systems on the land.

By issuing "environmental credits" to these responsible producers, we would not only provide incentives to apply conservation practices, but would confirm that a producer is meeting the requirements of federal and state programs. Such credits could certify, for example, that a producer is meeting the requirements of the state's nonpoint management program, wetlands conservation program or any number of other program requirements.

This approach would help to ensure timely application of conservation practices and constant-care management. It also would foster a more active relationship between conservation farmers, the local conservation district and other service providers. It would involve more service to farmers, and more contact from their local field office.

NACD appreciates the opportunity to present our views to the subcommittee. NACD and America's conservation districts stand ready to assist wherever possible in promoting a healthy environment and a sustainable and productive agriculture industry in this country. Thank you.

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U.S. House of Representatives
Committee on Agriculture
Subcommittee on Environment, Credit, and Rural Development
Clean Water Act Reauthorization
James W. Garner, President
National Association of State Foresters
March 23, 1994

Thank you for the opportunity to testify before this committee today. We appreciate your willingness to hear the concerns of the National Association of State Foresters regarding the impact of non-point source pollution and wetlands protection provisions as proposed in legislation under consideration by the House and Senate. These are the two chief areas of concern for our organization in terms of reauthorization of the Clean Water Act. We believe we share many concerns with the agriculture community on these issues.

The National Association of State Foresters (NASF) represents the directors of state forestry agencies from all fifty states and three territories (Guam, Puerto Rico, Virgin Islands) and the District of Columbia. In that capacity we are responsible for the management and protection of state and private forest lands. These lands make up approximately 70 percent of the Nation's total forest land base. State Foresters administer a range of federal and state programs that include fire, insect and disease prevention and suppression as well as landowner assistance and cost share programs including the Forest Stewardship and Stewardship Incentives Programs.

NASF believes forest management is vital to the protection of the Nation's water resources and is committed to achieving the goals of the Water Quality Act. We are also dedicated to the belief that good forest management is a critical part of the solution in achieving and maintaining clean water goals.

Non-Point Source Pollution:
Forested watersheds are primary sources of high quality water. Almost all the states have developed forestry Best Management Practices which are recommended preventative practices to protect water bodies from impairment and minimize the impact of specific forestry activities such as forest roads and skid trails. These Best Management Practices (BMP's) consider soil type, geology, topography, scale and timing of forest management activities which are characterized by periodic and temporary management activities. Because of the dispersed nature of these activities, potential impacts are relatively short-lived, particularly when compared with other non-point source categories. Although one-third of the nation's land base is forested, U.S. Environmental Protection Agency (EPA) estimates attribute only three to seven percent of all non-point source pollution to silvicultural activities nation-wide.

State forestry agencies have been pro-active in developing and implementing state programs for non-point source pollution prevention from forestry activities for over 20 years. Many states took early steps to identify needed BMPs and to promote their use. NASF is pleased with the attention being given to preventative measures for non-point source pollu-

tion in proposed legislation; I would like to clearly emphasize that prevention has been forestry's long-established approach.

Currently, 44 states have active non-point source programs for forestry, ranging from regulatory approaches such as forest practices acts to non-regulatory approaches that rely on education and technical assistance. The majority of states have successfully opted for non-regulatory programs. We believe most of these states have programs in place with incentives and enforceable mechanisms that meet the intent and requirements of Coastal Zone Management Act's non-point source management programs. To demonstrate this, NASF has recently undertaken a survey to determine the range of programs that states have in place. The draft results indicate that the states utilize a variety of mechanisms that include incentive-based programs as well as state and local regulatory controls.

Forestry agencies have been monitoring the application of BMP's for over 10 years. The results indicate up to 90 percent compliance in using the appropriate BMP's; high levels of compliance are found on both public and private industry lands. The results of these surveys are used to target educational efforts and technical assistance. I would also point out that these accomplishments have been achieved with negligible amounts of Section 319 grant funds, which have not been available to forestry agencies to any significant degree.

Of the legislation that has been introduced in the House and Senate, we are greatly concerned with provisions that label non-point sources as either 'new' and 'existing sources (S. 1114, H.R. 3948, H.R. 2543). This categorization is absolutely unnecessary and counter-productive; definitions such as 'new' and 'existing' sources only add confusion and more importantly infringe upon state authority to critically assess the major non-point source problems within their states and state prerogatives to direct limited resources to where needs are greatest.

Other concerns and questions are raised with defining forestry activities as a 'new source': new source designation has previously been limited to point sources; it will lead ultimately to discrimination in terms of regulating watershed-scale activities, and will cloud interpretation of the Section 404(f) silviculture exemptions.

Until the full committee markup, the Senate bill S. 1114 would have specifically defined forestry activities as 'new sources' of non-point source pollution and require implementation of management measures wherever certain specific forestry activities occurred. Other 'new sources' have been defined to include highway and bridge construction. Agricultural non-point source pollution, however, would be defined as an existing source and different requirements would apply.

As amended by the full committee, S. 1114 now delegates to the EPA Administrator the authority to designate new sources. Congressman Mineta's bill, HR 3948, refers also to new and existing sources. Since these terms are not specifically defined in the legislation, we are left to assume as in the Senate bill, HR 3948 would leave this to EPA. It is undoubtedly clear to us that EPA would define forestry activities as 'new sources' of non-point source pollution. As stated previously, we believe this to be unnecessary. However, if categorization of non-point sources must be done, categories should reflect time and space considerations as well as the type of pollutants involved. In that regard, forestry activities could be best characterized as temporary, periodic and non-toxic.

NASF supports implementation of preventative practices for all non-point sources of pollution. However, we strongly feel it should continue to be a state responsibility to identify critical and problem sources. States should continue also to be responsible for the development of appropriate programs to address problems. Since it is clear that federal and

state resources are going to continue to be severely constrained in the future, states should have the prerogative to target what resources are available towards state-determined priorities. To ensure effective and productive programs, states need to be accountable but retain flexibility to meet the unique circumstances and needs of their states if they are to continue to meet the objectives of water quality. This is accountability with flexibility.

The Senate, Mineta and Oberstar bills all direct the Environmental Protection Agency to develop management measure guidance for new and existing sources of non-point source pollution. NASF does not oppose this direction to EPA. In fact, state forestry personnel participated in the development of Non-Point Source Management Measure Guidance for silvicultural actives in coastal areas. However, we think it necessary and critical to recognize and appropriately limit the authorities that are granted to EPA for setting and directing National policies and practices.

Following are several final points and recommendations we would leave with the committee on non-point source pollution. We know what we need to do to prevent and reduce non-point source pollution that results from forestry activities and we are doing it -- despite severely limited resources. If assistance for addressing non point source problems were to increase five-fold it would still not come to forestry because we are not a major problem. The approaches of S. 1114, H.R. 3948 and H.R. 2543 add artificial and unneeded definitions and categories that will seriously hamper and restrict the ability to effectively and efficiently address non-point pollution at the state and local levels. These approaches will also -- inadvertently -- stretch and reallocate limited resources to areas of lesser priority that are still going to be addressed. With these comments, NASF offers the following recommendations that we hope the committee will consider actively pursuing in the best interest of achieving water quality goals for the Nation.

Recommendations for Non-Point Source Pollution legislation:

- **Continue to utilize existing categories of non-point source pollution identified by Congress in 1972. Federal legislation and federal administrative agencies should not create or develop new labels; to do so would add confusion and complexity. Remove references to 'new' and 'existing' non-point sources.**

- **NASF supports provisions of H.R. 3948 that recognize comparable state and local programs (Sec. 321, (c)).**

- **NASF supports provisions in H.R. 3948 that require the EPA Administrator to consult with appropriate Federal and State departments and agencies, and publish for public comment, guidance that identifies best management practices and measures to be undertaken. Where forestry is concerned this should include appropriate state and professional forestry representatives.**

- **Where similar non-point source programs and responsible administrative agencies overlap -- e.g., coastal zone non-point source management programs -- authority to implement and manage non point sources at the state level should be assigned to a single agency within the state.**

- **"Qualified" programs that are recognized as satisfying the requirement for implementation of site specific management plans (i.e., Conservation Reserve, Integrated Farm Management, Agriculture Water Quality Protection programs) should include appropriate forestry programs.**

• **NASF opposes development of regional Management Measure guidance. It would add unnecessary complexity, inconsistency and inefficiency to the process.**

• **Incentives and assistance programs should be expanded to include silvicultural non-point source preventive practices such as Best Management Practices (e.g., Agriculture Conservation Program, Water Quality Incentives Programs).**

Wetlands Protection:
NASF recognizes that forested wetlands represent important National resources deserving of attention and protection. We hope the public and Congress will continue to recognize that forestry is a land use that is compatible with the goals of wetland protection. Forest management contributes to the maintenance and enhancement of wetland functions and values while allowing landowners the opportunity to derive income and other benefits. Forested wetlands can and should be managed to provide economic returns to landowners without compromising the integrity of wetland functions and values.

The 1988 Final Report of the National Wetlands Policy Forum which first coined the goal of 'no net loss' found that "appropriate silvicultural operations can be carried out without damaging the ecosystem. Good silvicultural management practices and the production of native crop species can generate income without significant loss of wetlands functions. Private landowners, including timber companies, should be encouraged to pursue ecologically sound silvicultural practices in privately owned forested wetlands".

The 404 program enables this through exemptions for 'ongoing' and 'normal' silvicultural activities. It is essential that these exemptions be extended.

Recommendations for Wetlands Protection legislation:

• **Continue the current Section 404 exemptions for normal and ongoing silvicultural activities.**

• **Include and/or adapt incentive-based approaches for non-industrial private forest lands to gain lasting landowner commitment.**

• **Establish clear national goals and values for wetlands protection at the federal level; allow flexibility to the states to design programs to achieve these goals and tailor management to local hydrologic and ecological conditions.**

• **Ensure states (including state forestry) have the opportunity to participate in training and become certified in wetland delineation.**

• **Recognize that for many owners of forested wetlands, income from timber production is the only economic value coming to them from these lands. Denying an owner the right to manage wetland forest resources and produce timber for markets would in effect 'take' all residual economic value from many landowners.**

• **NASF supports a wetlands appeal process whereby forest wetlands owners can appeal EPA jurisdictional determinations including notices alleging violations for Section 404(f). A pre-enforcement administrative appeal is a more cooperative and less adversarial process to resolve areas of disagreement. An administrative appeal should occur before a penalty is assessed.**

• **NASF supports that all three wetland criteria – hydrology, soils and vegetation – should be present to verify a site as "water of the United States."**

NASF again appreciates the opportunity to bring forward our concerns and hopes this committee will give our recommendations serious consideration. We would finally emphasize that State Foresters continue to believe in pro-active preventative programs in addressing non-point source pollution. This approach entails the development and implementation of state Best Management Practices as the most effective means for dealing with non-point source pollution.

(Attachment follows:)

National Association of State Foresters
Major Legislative Recommendations
Clean Water Reauthorization

Non-Point Source Pollution:

• Continue to utilize existing categories of non-point source pollution identified by Congress in 1972. Federal legislation and federal administrative agencies should not create or develop new labels; to do so would add confusion and complexity. Remove references to 'new' and 'existing' non-point sources.

• NASF supports provisions of H.R. 3948 that recognize comparable state and local programs (Sec. 321, (c)).

• NASF supports provisions in H.R.. 3498 that require the EPA Administrator to consult with appropriate Federal and State departments and agencies and publish for public comment guidance that identifies best management practices and measures to be undertaken. Where forestry is concerned this should include appropriate state and professional forestry representatives.

• Where similar non-point source pollution programs and responsible administrative agencies overlap -- e.g., coastal zone non-point source management programs -- authority to implement and manage non point sources at the state level should be assigned to a single agency within the state.

• "Qualified" programs that are recognized as satisfying the requirement for implementation of site specific management plans (i.e., Conservation Reserve, Integrated Farm Management, Agriculture Water Quality Protection programs) should include appropriate forestry programs.

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• NASF supports that all three wetland criteria -- hydrology, soils and vegetation -- should be present to verify a site as "water of the United States."

AMERICAN ASSOCIATION OF NURSERYMEN

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Statement Before the
SUBCOMMITTEE ON ENVIRONMENT, CREDIT AND RURAL DEVELOPMENT
COMMITTEE ON AGRICULTURE
United States House of Representatives
March 23, 1994

Mr. Chairman, the American Association of Nurserymen (AAN) welcomes this opportunity to present the nursery industry's views with respect to wetlands regulations. Specifically, our concern centers on the proper recognition and treatment of nursery farms as agricultural lands.

AAN is the national trade organization for the nursery industry. AAN directly represents the interests of 2,200 nursery growers, landscape professionals and garden center retailers. We represent an additional 16,000 family farms and small businesses through the membership of the state/regional nursery and landscape associations.

ECONOMIC STATURE OF THE NURSERY INDUSTRY

According to USDA's Economic Research Service (ERS), the nursery and greenhouse industry continues to outpace other major agricultural sectors. Nursery and greenhouse crops totaled an estimated $9 billion in 1993 -- representing nearly 11 percent of the total cash receipts for all U.S. farm crops. For comparison purposes, ERS estimated that farmgate cash receipts for nursery and greenhouse crops were just $6 billion seven years ago.

Nursery and greenhouse crops in 1992 ranked 6th in total grower cash receipts among all farm commodities -- ahead of such major crops as wheat, cotton and tobacco. Nursery and greenhouse crop production now ranks in the top 5 agricultural commodities in 23 states and in the top 10 in 42 states. USDA also finds that nursery and greenhouse farms in 1990 had the highest average net farm income of any agricultural commodity at $53,589. This was four times higher than the average American net farm income of $13,458.

These impressive figures become even more so when one considers that unlike so many other agricultural sectors, the nursery industry does not receive -- nor does it desire -- any federal subsidies or price supports.

TREATMENT OF NURSERY FARMS AS AGRICULTURAL LANDS

AAN firmly maintains that nursery crop production must be

accorded the same status as that of other agricultural commodities under 7 CFR sections 12.5, 12.33, and any other provisions which contain exemptions for agricultural activities from wetlands restrictions. This includes the Army Corps of Engineers Regulatory Guidance Letter 90-7 which arbitrarily excludes nursery crops and other perennial crops, such as turfgrass sod, from exemptions provided to other segments of agriculture as "prior converted cropland."

Moreover, AAN is particularly disturbed with the definition of the term "agricultural lands" found in the "Interagency Memorandum of Agreement" (MOA) concerning wetlands determinations as published in the January 19, 1994 issue of the Federal Register at page 2920. In this definition, the term "agricultural lands" is arbitrarily limited to "those lands intensively used and managed for the production of food or fiber...."

Since nursery crops are neither food nor fiber, this "agricultural lands" definition effectively excludes nursery farms or production nurseries, thereby creating a wholly inappropriate wedge between the nursery industry and the rest of American agriculture. Inevitably, this artificial division will lead to additional confusion, contradictory policy directives, and sheer frustration on the part of nursery growers seeking to comply with regulations implementing wetland policies, Clean Water Act amendments, the Coastal Zone Management Act, and other non-point source pollution standards.

The MOA's definition further clouds this issue by stating that the "agricultural lands" definition does not include tree farms. It is understood that "tree farms" nearly always refer to forestry and timber operations, and, in light thereof, AAN has no reservations about such a "tree farm" exclusion. However, in the absence of an explicit inclusion of nursery crops under the term "agricultural lands," there will be some who will erroneously interpret "tree farms" as being production nurseries. This must be avoided.

In recent meetings with top officials of USDA's Soil and Conservation Service, AAN discussed these concerns and our desire to remove the ambiguity from wetlands conservation regulations, and the MOA which defines agricultural lands as only those intensively used and managed for the production of food and fiber. Nursery crops must be accorded the same status as that of other agricultural commodities because: (1) the farming practices necessary for nursery crop production are just as intensive -- if not more so -- as they are for annual crops and other agricultural commodities; and, (2) the overwhelming litany

of legal precedents in existing federal and state laws and regulations properly and fully recognizes and treats nursery crop production as part of agriculture.

Clearly, any definition of "agricultural lands" which is limited solely to food and fiber production, and ignores nursery crop production, is an inadequate and arbitrary one bringing into question those policies which embrace such narrowly crafted definitions.

NURSERY FARMS ARE INTENSIVELY USED AND MANAGED FOR THE PRODUCTION OF AGRICULTURAL CROPS

Production nurseries comprise a diverse, dynamic segment of agriculture. Unlike food, feed and fiber crop farmers, nursery farms may produce hundreds or even thousands of plant varieties on anywhere from a few acres to hundreds of acres or more. Yet basic plant needs, such as adequate water, soil fertility, and pest management, must be met as with other crops. Therefore, equipment needs and production practices are analogous to most agricultural crops.

An estimated 450,000 acres are in nursery crop cultivation, both in the open, and in permanent or temporary greenhouses. Nursery crops include, but are not limited to ornamental and shade trees, evergreen trees, flowering and evergreen shrubs, fruit trees and plants, groundcovers and vines, perennial plants, potted foliage and flowering plants, and annual bedding plants. Plants may be grown in rows or beds in the soil much like other crops, or in containers. They may be harvested as young plants (called liners) and sold to other nurseries to be "grown-on," or they may be sold as "finished" plants to landscape professionals, retail establishments, municipalities, and government agencies.

Most food, feed and fiber crops are annual crops as they are planted and harvested in the same growing season. Nursery crops may have a growing cycle of a few months (bedding plants), one growing season (some liners and fast-growing crops), one to three years (many shrubs, and smaller caliper-sizes of ornamental, evergreen or shade trees), up to seven years or more (some landscape-sized shade, flowering, and evergreen trees, and slow-growing varieties). Nurseries typically schedule the planting, transplanting, and harvest of plants to ensure annual harvests of the desired size and quantity of each variety grown. This means that growing fields may contain "blocks" of plants in various stages of growth, to be harvested over a period of years.

Throughout their various growing periods, nursery crops are

intensively managed to ensure high quality, uniformity, and freedom from pest infestation. Examples of such intensive management are illustrated by the following practices, conducted at a frequency ranging from daily to seasonally:

Field Nursery Production

- Field preparation (drainage, soil testing, plowing, tilling, fertility and pH adjustment, addition of organic matter)
- Planting (mechanical or by hand)
- Budding and grafting
- Pruning, training, and staking
- Weed management (cultivation, herbicide application)
- Animal damage control
- Fertility management
- Irrigation
- Root pruning (to ensure adequate fibrous roots for survival of plants after digging)
- Pest management (includes pest monitoring, cultural controls, pesticide applications, recordkeeping etc.)
- Harvesting (hand or mechanical)
- Post-harvest handling or storage

Container Nursery Production

- Growing media mixing/preparation
- Planting/filling containers (hand, mechanical, or combination)
- Moving to and placing in growing location
- Spacing during growing season
- Irrigation (daily during growing season. Usually mechanized/computerized. May involve capture, treatment and reuse of water for conservation purposes.
- Pruning, staking and spacing of plants as they grow
- Weed control
- Pest management (same as above)
- Repotting (as plants grow, they may need to be repotted into larger container)
- Fertilization
- Winter protection
- Harvest

Such intensive management practices are on-going regardless of the type of plant crop involved. Even when growing nursery crops which may have production cycles of one or more years, intensive management throughout the production process is critical to ensuring high-quality crops.

CONCLUSION

Clearly, nursery crop production meets the criteria established for agricultural activities. We do not seek special treatment of any kind as the nursery industry will comply with all applicable rules and regulations to which other agricultural producers are subjected. All AAN asks is that production nurseries and turfgrass sod farms be explicitly recognized and included in the definition of "agricultural lands," and that such crop production be treated on the same level playing field as other agricultural crops and activities with regard to wetlands regulations.

AAN hereby respectfully requests Congress to direct the federal agencies to explicitly clarify and treat nursery farms as "agricultural lands" in the January 19, 1994 "Interagency Memorandum of Agreement" concerning wetlands determinations, and in the wetlands conservation regulations at 7 CFR Part 12.

Mr. Chairman, AAN genuinely appreciates this opportunity to present the nursery industry's views regarding wetlands regulations. Thank you for your consideration and we look forward to continuing to work with you and your staff.

COMMENTS BY ROY BARDOLE

ASA Director from Iowa

to the House Ag Subcommittee on Environment, Credit

and Rural Development

March 23, 1994

My name is Roy Bardole and I want to thank you for this opportunity to offer my thoughts to you. I am a central Iowa farmer. Two of my sons and I farm 1280 acres in the Prairie Pothole region of Iowa. My grandfather and great grandfather bought the home 170 A in 1901. Grandfather's neighbors said they were glad to have him as a neighbor, but told him he bought a worn out farm. At that time they tilled less than 90 acres of hill tops and the well drained side hills. All the low ground was either ponds or wild hay slough. Over the years we have tiled this ground until it is now all highly productive ground, with the tiled ground being the most productive.

I have been active in the Iowa Soybean Association and had the opportunity to serve on the Iowa Nutrient Management Task Force. Eleven Iowa ag related groups met to try to understand and resolve the problem of nitrogen in the Des Moines and Raccoon Rivers. We listened to researchers from Iowa State University, University of Iowa, Iowa Department of Agriculture & Land Stewardship, and industry as well as water treatment people from Des Moines, and Iowa regulatory agencies. We tried to gather information from as many different sources as possible and then put it all together.

The first thing to note is that there are four very distinctive soil areas in Iowa; Karst(Big Springs)area of North Eastern Iowa, the Loess Hills of western Iowa, the rolling hills of southern Iowa and the Prairie Pothole area of central and northern Iowa. Each of these areas have distinctive soil, subsoil and parent material differences. The Big Springs area of northeast Iowa is underlain with limestone and they have sinkhole problems. These sinkholes of course drain directly into the ground water and they used to be used as convenient dump sights for every thing from junk to raw sewage. The Loess Hills of western Iowa are a wind blown soil with the topsoil sometimes 60 feet deep. These soils are naturally very well drained, but very susceptible to erosion. The rolling hills of southern Iowa are relatively well drained with shallow top soils. The Prairie Pothole soils have a very tight subsoil which makes their natural drainage poor. These soils are extremely productive however, when they are properly drained.

Jerry Hatfield, from the National Soil Tilth Laboratory,told us that water moves vertically fairly quickly to the shallow 3 to 6 foot deep water table. The water then tends to flow horizontally to a streams sand base. This horizontal movement however is very very slow. After he told us this, he continued on to say that this is their understanding of water movement in an isolated simple watershed, but when looking at a complex watershed like the Des Moines River or the Raccoon River, they really don't understand fully the way water moves or doesn't move in the soil.

Dr. G.R.Hallberg of the Iowa Department of Natural Resources gave us a summary of the Rural Well Water Survey that was conducted on 732 wells. 18.3% of these wells were above the HAL of 10 ppm of nitrates. His evaluation of this data was that Iowa farmers are applying way too much nitrogen. Ken Chocquette,Iowa Department of Public Health, then spoke to us on well construction. He pointed out that in some areas of Iowa over 70% of the wells have coliform contamination which means water is flowing directly from the surface of the ground into the well. His analysis was that over 90% of the well water quality problems could be solved by proper well construction.

Des Moines, Iowa,takes their drinking water from the Raccoon and Des Moines Rivers. Some springs, the water plant manager must issue a nitrate alert because the nitrate level in the river is above the HAL of 10 ppm. L.D.McMullen, Director of the Des Moines Water Works, told us about his job and the importance of clean safe water. He went on to say he was installing a nitrate filter unit at a cost of 2 million dollars that would in reality do no one any good but make everyone feel better. Throughout our process the continual perception seemed to point toward nitrogen application as a problem. Tom DeLuca, a researcher for the Leopold Center for Sustainable Agriculture at Iowa State University, showed us data of nitrate levels in 1945 and 1991 in the Des Moines River. While the use of nitrogen fertilizer has increased 100 fold from 1945 to 1991, the level of nitrates in the Des Moines River in years with like flow rates was unchanged.

The question of "why" became fairly important to the Nutrient Management Task Force. By examining nitrate levels in tile water under different forms of vegetation and cultivation, it became clear that row crop agriculture has a very definite part of the responsibility for the surface water nitrate problem. We learned that Iowa's organic soils have an average of 3000 pounds of nitrogen per acre tied up in organic matter. This nitrogen is released as microbial activity digests the organic matter. When Iowa was drained and our vegetation changed from prairie grass to corn and soybeans, we moved from a vegetation that consumed nitrogen seven to eight months out of the year, to nitrogen use only 4 1\2 months of the year. A logical question is if there is 3000 # of nitrogen in every acre of Iowa soil, why should I want to apply another 100# before I plant corn? The answer is, that organic nitrogen is not available for plant uptake. Some of that organic nitrogen is available every year, but as of now researchers do not know how to predict how much nitrogen will be available from the soil.

The bottom line is, regardless of how good a job I do managing nitrogen inputs, I can not guarantee any improvement in surface water nitrogen levels. I have not said anything about potassium or phosphate because the soils I work with hold these elements so tightly, that they are not a pollutant.

I do not envy the responsibility of writing a Clean Water Act that will be meaningful and still attainable. This would not be easy in Iowa with its different soil areas, but for the entire country to include the problems of sand soils, of irrigation, and some of the

blue clay soils, it boggles by mind, for an attainable goal in one area is scientifically impossible in another.

The soils I am familiar with have a tremendous buffering capacity and a change in management may not be reflected in measurable results for many years. When a water quality problem is coming from an industrial discharge, point source, the company must be convinced they are the problem. Then they must invest in technology and equipment to correct the problem. As soon as everything is installed and working, the results can be measured. The same time is required for recognition and implementation of technology in production agriculture. However, with non point source type pollution, like agriculture, measurable improvement in water quality may still be 10 to 20 years away.

Almost by definition, the prairie pothole soils of Iowa are synonymous with wetland legislation. I believe it is common knowledge that wetlands are a cleansing agent. I have heard several proposals on how to use this information, but none seem practical either for the environment or financially for agriculture.

Virtually all land owners in Iowa have invested from thousands to hundreds of thousands of dollars in tile, terraces, and waterways all done to the specifications of the Soil Conservation Service. Where erosion is a problem the loss of soil is truly the greatest clean water risk. As legislation and rules are written, the protection of current practices and funding for further measures are imperative.

There are solutions for clean water, but the solution must be tailored to the specific problem. Example: Iowa made a significant improvement in water quality in the Big Springs area of Iowa by cleaning up the sinkholes, not allowing any water or waste discharge into sinkholes, and restricting the use of certain ag chemicals. This improvement took over 10 years.

Throughout agriculture, the use of BMP's and the continued research to update BMP's is valuable. It is crucial that BMP's are driven by science and not emotions if goals are to be achieved.

Example: On an emotional level, animal nutrients are much safer than "Chemical" fertilizer. In reality, the soil, plants, or scientists can not identify a nitrates source once it is in solution.

I want to be able to continue to farm. During the 80's, I had to sell 80 acres to reduce debt. I had no debt forgiven and I am working at paying down my debt. I am financially strapped as to what new environmental procedures I can implement. I am willing to do my share to protect the environment, but as science finds new and better ways to protect our water resources, I will need funding attached to legislation if I am to be the good steward of the resources I manage.

Some would recommend the ultimate nitrate solution is to plug the tiles. However,if this is done, I would immediately return to 1901 and my tillable acres farmed would drop by almost 50% and the 50% lost would be the most productive ground. This is truly not a reasonable solution for anyone;

1. For me personally, because this kind of loss would very definitely bankrupt me

2. For the state of Iowa, because they would give up State income from property tax, income tax from farm income, ag input income, and processing income, as well as further loss of population.

3. For the consumer, because of an increase in the price of food due to a drop of not only Iowa's productions, but all tile drained soils in the United States.

After great thought and study, I believe reasonable solutions must include and reflect these items:

1. Solutions must be local or site specific.
2. In the complexity of the environment, neat cause and effect relationships generally don't exist.
3. As with the wells of rural Iowa, some solutions are repairs of current structures.
4. Continued sound scientific research to improve Best Management Practices is imperative.
5. Funding, attainable goals and time lines, based on good science, must be a part of legislation.

I believe the government, the environmentalist, and agriculture can work together and find solutions that, though not perfect, we all can live with.

ASPA ASPA

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An International Organization Dedicated to Advancement of the Turfgrass Sod Industry

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TESTIMONY SUBMITTED BY

THE AMERICAN SOD PRODUCERS ASSOCIATION

on the

Impact of Wetlands and Non-Point Source Pollution

Regulations on Agricultural Land

Before the Environment, Credit and Rural Development

House Subcommittee on Agriculture

by

Douglas H. Fender

Executive Director

March 23, 1994

MR. CHAIRMAN: We are pleased to submit testimony regarding a problem turfgrass sod producers have concerning the enforcement of wetlands protections under section 404 of the Clean Water Act and the disparate treatment of agricultural commodities under the law.

The American Sod Producers Association (ASPA) is the international, independent, non-profit trade association for over 650 farms involved in the growing and marketing of turfgrass sod. ASPA also represents nearly 100

Congress is beginning to seriously review national wetlands policy at a time when there is much controversy over the definition of what constitutes "wetlands" under the Clean Water Act of 1972, as well as other related issues affecting many persons and businesses throughout the U.S., equipment manufacturers and 50 university educators/researchers. It has members in 49 of the 50 states, all Canadian provinces and 29 additional countries.

Owners of land used to produce agricultural commodities have been adversely affected by existing wetlands law and government enforcement policy, even though normal farming and ranching activities are intended to be excluded from the more onerous provisions of existing law.

The Clean Water Act requires any person to obtain a permit prior to discharging dredge or fill material into the "waters of the United States." The agencies charged with enforcing the Act-Army Corps of Engineers, Environmental Protection Agency, Fish and Wildlife Service--have broadly defined the phrase "waters of the United States" to go well beyond common notions of wetlands-swamps, marshes and bogs--to include temporarily saturated wetlands and land that may be dry most of the year.

Although provisions of the Clean Water Act and the Swampbuster Program created under the 1985 Farm Bill provide partial exemptions from some of the controversial features of current wetlands policy, the exemptions and their interpretations arbitrarily distinguish between annual and perennial agricultural commodities, thereby discriminating against a large

segment of American agriculture without any environmentally-based policy justification. Among the commodities suffering from this disparate treatment is turfgrass sod.

How this disparate treatment came about requires an understanding of the agricultural exemptions under both the Clean Water Act and the Swampbuster Program:

Clean Water Act. The Act contains a narrow exemption for "normal ranching and farming activities." This term is very narrowly construed and varies from region to region. Although turfgrass sod production is clearly a farming activity under federal law, the Army Corps of Engineers, which is responsible for enforcing the Act, considers turfgrass within the definition of farming in some regions, while in others it does not. There is no clear-cut definition to provide guidance as to exempted agricultural commodities.

Swampbuster Program. The Swampbuster Program was created in 1985 to discourage farmers and ranchers from draining swamps and otherwise eliminating wetlands in order to bring more of their property into agricultural production. The penalty for doing so is loss of program price supports and other benefits. The program affects only those involved in producing "program crops." Those agricultural property owners involved in the conversion of such land prior to the Swampbuster Program's enactment on December 23, 1985 are given a "prior converted cropland" exemption from its enforcement provisions.

The Swampbuster Program's "prior converted cropland" exemption is limited to annual "program crops" because those are the only crops affected by the program's sanctions. Perennial crops generally do not receive price supports and other benefits. Unfortunately, without valid scientific reasons, the annual/perennial distinction has been carried over into the Clean Water Act, where perennial crops are affected. Regulatory Guidance Letter 90-7 issued by the Corps of Engineers in 1990 defines the term "prior converted cropland" to exclude turfgrass sod and all other perennial agricultural commodities, including tree crops, cranberries, blueberries, grass hay and alfalfa hay. The definition of the term "agricultural commodity" only includes annual crops.

ASPA expressed its concerns about the agricultural definitional problems to USDA prior to the issuance of its Interagency Memorandum of Understanding (MOA) intended to resolve these types of issues. We thought we might obtain relief for our problem when we learned that the Soil Conservation Service (SCS), the Corps' of Engineers and the Environmental Protection Agency were entering into an MOA that would shift responsibility for agricultural determinations to SCS.

Unfortunately, our hopes were dashed when we read the MOA, published in the January 19, 1994 *Federal Register* at 2920. The definition of "agricultural lands" in the MOA is extremely ambiguous. On the one hand, it refers to lands "intensively used and managed for the production of food or fiber," which would not include turfgrass sod. Turfgrass sod clearly is an intensively used and managed commodity, but is not "food or

fiber." At the same time, the MOA does include hayland and pastureland with "planted grasses or legumes" such as ryegrass or bluegrass. These are not "food or fiber" either but does their inclusion mean that turfgrass sod is included as well?

Ultimately, because of this ambiguity, we are left with Regulatory Guidance Letter 90-7, which created our problem in the first place.

Yet, turfgrass sod and other perennial crops are considered an "agricultural commodity" under numerous federal laws, including other environmental laws. Moreover, they are considered an agricultural activity under the Standard Industrial Classification (SIC) Manual, which is considered the authoritative classification scheme for American industry. Their exclusion from the wetlands agricultural exemption makes no logical or scientific sense, as the policy reasons for exempting program crops like wheat and corn must also apply to turfgrass sod, fruit trees and other non-program crop agricultural commodities.

As Congress prepares to reauthorize the Clean Water Act, ASPA urges that this Subcommittee, with its knowledge and concern about agriculture, take steps to ensure that any legislation dealing with wetlands focuses on the agricultural provisions and clarify the term "agricultural commodity" so that it is complete and equitable for purposes of determining eligibility for agricultural exemptions. We urge the Subcommittee to amend the law to treat <u>all</u> crops the same for purposes of the agricultural exemptions, regardless of when they are harvested. Failure to correct this inequity will perpetuate an arbitrary

distinction between two types of agricultural production that furthers no environmental objective. Moreover, it will capriciously subject one class of agricultural producers, including producers of turfgrass sod, to potentially serious penalties and restrictions on the use of their property without any sound scientific or public policy basis for doing so.

We appreciate this opportunity to provide our views to the Subcommittee.

STATEMENT

OF

THE NATIONAL WETLANDS COALITION

The National Wetlands Coalition is an incorporated group of approximately 70 companies, Native American groups, associations and local governments that represent a cross-section of the community that is subject to regulation by the Section 404 permitting program. A list of the members of the Coalition and the Statement of Principles that we support are attached as Attachments 1 and 2. We recognize the importance of our nation's functioning wetlands base and support the goal of "no overall net loss of wetlands" when expressed in terms of functions and values rather than acres. We believe, based on recent information released by the Soil Conservation Service and the Corps of Engineers, that the nation is much closer to achieving the stated goal of "no overall net loss" rather than the purported continuing annual loss of 290,000 acres of wetlands, which we believe to be a totally erroneous figure.

The Coalition strongly supports, H.R. 1330, the Wetlands Conservation and Management Act of 1993, as the program that can achieve the nation's wetlands conservation goals consistent with our nation's tradition of respecting the property rights of individuals, our nation's need for continued economic growth and the maintenance of strong local tax bases. The Coalition strongly opposes H.R. 350, the Wetlands Reform Act of 1993. The Coalition also opposes a number of provisions in H.R. 3465, the Wetlands Protection and Management Act of 1993. The Coalition supports many of the concepts contained in the President's Plan that was announced on August 24, 1993. However, we cannot express a position on most of the specifics of that program since those specifics have not yet been forthcoming.

Attached to this testimony are Attachments 3, 4 and 5 that contain the Coalition's positions on specific provisions contained in H.R. 350, H.R. 3465 and the President's Plan. The body of our testimony will focus on the problems we see with the current Section 404 program and the important reforms that we believe are needed.

THE PROBLEM WITH THE SECTION 404 PROGRAM:

Evolution of the Program:

We believe strongly that the current Section 404 program evolved with the inattention or acquiescence of Congress rather than having been designed by Congress. Section 404 of the Federal Water Pollution Control Act of 1972 provided a permitting program for a very specific type of pollution: the discharge of "dredged or fill material" into the "navigable waters, at specified disposal sites." The Act defined "navigable waters" as the "waters of the United States, including the territorial seas." The word "wetlands" does not appear anywhere in the statute or legislative history and it is doubtful that Congress contemplated the current program in 1972. Instead, Federal court decisions in United States v. Holland, 373 F. Supp. 665 (M.D. Fla. 1974) and Natural Resources Defense Council, Inc. v. Callaway, 392 F. Supp. 685 (D.D.C. 1975), began the expansion of the term "navigable waters" to extend "over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution." Callaway, at 686.

The Callaway case triggered a several year effort by the Corps to arrive at an acceptable description of the term "waters of the United States" which included various categories of wetlands. The evolution of the program continued as Congress debated the Clean Water Act of 1977. As the debate unfolded over the Clean Water Act, efforts to curb the growing jurisdictional reach came close to succeeding in both the House and Senate, but failed. In the end, Congress reauthorized the Section 404 program without taking decisive action on the jurisdictional reach of the program, but incorporated the concept of "general permits" to aid the Corps in its implementation of the program.

Congress has not returned to this debate since 1977. Meanwhile, in United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985), the Supreme Court upheld the expansive definition of "waters of the United States" to include infrequently flooded "adjacent wetlands." The Court noted that the Congress had rejected efforts to restrict the Corps definition of "waters of the United States" during the Clean Water Act debate in 1977. Finally, the definition of Federal jurisdictional wetlands may have reached its apex with the release of the 1989 Federal Manual for Identifying and Delineating a Wetland.

While the reach of the program was evolving ever more broadly, access to Section 404 permits was becoming more restrictive. On December 24, 1980, as President Carter was leaving office, the Environmental Protection Agency issued the Section 404(b)(1) guidelines which established the current "avoidance" permitting

methodology. In 1988, the U.S. Court of Appeals for the Second Circuit in Bersani v. Robichaud, 850 F.2d 36 (2d Cir. 1988), cert. denied 109 S.Ct. 1556 (1989) upheld EPA's interpretation of the "practical alternatives test," under which the permit applicant bears the burden of clearly demonstrating that practical alternatives to the proposed project having less environmental impact do not exist. On February 7, 1990, in a Memorandum of Agreement between the Corps of Engineers and the Environmental Protection Agency, the Corps agreed to employ the strict "sequencing" methodology of the EPA in determining whether a Section 404 permit may be issued. Attached to this statement as Attachment 6 is a brief chronology of the history of the evolution of Federal wetlands regulation.

The Major Problem with the Section 404 Program:

The evolution of the Section 404 program into a very broad and rigid regulatory program has occurred over the last 17 years without policy guidance from the elected representatives of our nation. The result is the major problem that lies before the Congress today: approximately 75 million acres of privately owned land is being regulated as "wetlands" by two federal agencies, the Corps and the EPA, with the objective of "avoiding" all but the most minor alterations on that land. Some of that land is clearly identifiable by the public as wetlands, while other land can be identified as such by only the most discriminating and highly trained wetlands scientists. The result is a major conflict between landowners and environmentalists

and the private property rights backlash that materialized on the floor of the House during consideration of the National Biological Survey legislation in October, 1993.

The Coalition believes strongly that the Section 404 program must be reformed to reduce the conflict between our nation's environmental goals and economic and property ownership goals. We believe that this environmental program, like the Clean Air Act, must evolve away from primary reliance on the "central command and control" model of regulation to a more incentives-based program. We believe that H.R. 1330, the Wetlands Conservation and Management Act of 1993, is the proper Federal Wetlands regulatory program for the nation.

SPECIFIC RECOMMENDATIONS OF THE NATIONAL WETLANDS COALITION:

The Federal Wetlands Regulatory Program Must Recognize the Legitimate Interests of Private Landowners.

The dominant reality of the Section 404 program is that 75% of the "wetlands" that are being regulated are privately owned. Congress must ensure that the program minimizes adverse impacts on the value, use and enjoyment of this privately owned property.

The Coalition believes strongly that the goals of the program should specify that the national goal of "no overall net loss of wetlands functions and values" must be achieved consistent with the national goals of continued economic growth, strong local tax bases and the security of our citizens in the ownership, use and enjoyment of their privately owned property. The Coalition believes that the Secretary of the Army and the Administrator of the EPA, if the EPA remains involved in the

program, must be directed to implement the program in a manner that will have the least possible adverse impacts on the value, use and enjoyment of privately owned property, the local, state and national economies and local tax bases.

Finally, it is inevitable that the interests of some landowners will be required to give way to the overall national goal of wetlands conservation. Congress must make clear that when the value, use or enjoyment of privately owned property is "substantially diminished" by operation of the Section 404 program, the Federal government will compensate the landowner for his or her land. Congress must either provide a workable non-judicial mechanism for obtaining this compensation or open the local Federal district courts, rather than the U.S. Claims Court alone, to these claims. Congress must also provide that if the citizen prevails against the government, the government must pay reasonable attorneys fees and the cost of the litigation.

Definition of Federal Jurisdictional Wetlands:

The Coalition believes that Congress, rather than the agencies, must define the wetlands that are to be regulated by the Federal government. With 75% of the nation's wetlands in private ownership, the reach of this program is too important a decision to be delegated to Federal judges and Federal bureaucrats that are not directly accountable to the people.

We believe that the definition of Federal jurisdictional wetlands must require water on the surface for at least 21 days a year. Water on the surface for a

period of the year is the best indicator of the presence of wetlands to all but the most sophisticated landowners or land purchasers.

Activities to be Regulated:

The Coalition believes that Congress must designate the specific activities to be regulated and avoid broad, unspecific language, as contained in H.R. 350 and H.R. 3465, that can be expanded by judicial decision and agency interpretation.

Single Agency Implementation:

The Coalition believes strongly that only one agency should be responsible for the implementation of the program. The Corps has the largest staff of field personnel trained in the implementation of this program. Consolidate the Section 404 program into the hands of the Corps, provide the resources it needs to do the job and hold it accountable. All other agencies, including the EPA, the Fish & Wildlife Service, and the National Marine Fisheries Service, should be reduced to a consultation role.

Distinguish Between Wetlands Based on Functions and Values:

The Coalition believes strongly that all wetlands are not of equal value, such that certain activities might be appropriate in some wetlands while inappropriate in others. Classify wetlands according to value: high, medium and low. Regulate activities in high value wetlands more rigorously than activities in medium and low value wetlands.

Incorporate Mitigation Banking as a Central Element of the Nation's Wetlands Program:

Compensatory mitigation works. Mitigation banking can be an important tool for the creation, preservation, enhancement and restoration of large areas of wetlands. Moreover, private mitigation banks can allow individuals and companies to profit from environmentally sound activities -- the best incentive for achieving the nation's environmental goal.

Allow States and Local Governments to Implement Wetlands Permitting Programs that are Tailored to Their Situations:

Congress has intended, since the enactment of the Federal Water Pollution Control Act of 1972, for the Section 404 program to be delegated to the states. Under the rigid "delegation" rules that have been adopted by the EPA, only two states have qualified for the program: Michigan and, just recently, New Jersey.

Congress should allow states and localities to assume the Section 404 permitting program. Additionally, while the states have the program, no Federal agency should retain the power to veto a state permitting decision, as is allowed

under current EPA rules. States and localities should also have the flexibility to develop programs that will achieve the national goal of "no overall net loss of wetlands" without requiring them to adopt exactly the same provisions and standards as the Section 404 program.

Maintain and Expand the Use of General Permits:

Routine, incidental and minor wetlands altering activities should continue to be covered by the current general permit and additional general permits should be developed where warranted.

Untangle Agricultural Activities from the Section 404 Program:

Agriculture is subject to both the Swampbuster program of the Food Security Act of 1985 and the Clean Water Act's Section 404 program, which has caused significant confusion and undue hardships. Congress should untangle agricultural activities from coverage under the Section 404 program and make the Soil Conservation Service the lead agency with respect to delineation of agricultural lands and the issuance of any necessary 404 permits on such land.

Mapping and Public Notice:

Congress must ensure that the nation's Federal jurisdictional wetlands are mapped and that these maps are posted in county and parish court houses near the property records, when the maps are available. In the meantime, Congress must direct the Corps to post notices about the program in the court houses of every county and parish where Federal jurisdictional wetlands may exist.

Areas with Special Wetlands Problems:

At least two areas of our nation are dominated by Federal jurisdictional wetlands: Alaska and south Louisiana. Congress must recognize the realities of these areas and provide special rules that will allow continued human activity in these and similar areas while encouraging conservation, restoration and enhancement of overall wetlands functions and values.

The members of the Coalition encourage the subcommittee, the full committee and the Congress to seize the current opportunity to develop a wetlands program that can achieve the national goal of "no overall net loss" of wetlands functions and values while earning the support and cooperation of the regulated community.

(Attachments follow:)

ATTACHMENT 1

THE NATIONAL WETLANDS COALITION

MEMBERSHIP

March 18, 1994

ADAM'S RIB RECREATIONAL AREA
Eagle, Colorado
AKT DEVELOPMENT, INC.
Sacramento, California
ALASKA BUSSELL ELECTRIC INC.
Anchorage, Alaska
ALLEGHENY POWER SYSTEM, INC.
New York, New York
AMAX INC.
New York, New York
AMERICAN MINING CONGRESS
Washington, D.C.
AMERICAN FARM BUREAU FEDERATION
Washington, D.C.
ARCO ALASKA
Anchorage, Alaska
ARCTIC SLOPE REGIONAL CORPORATION
Barrow, Alaska
AUDUBON INSTITUTE
New Orleans, Louisiana
BADGER MINING CORPORATION
Fairwater, Wisconsin
BERRY BROS. GENERAL CONTRACTORS, INC.
Berwick, Louisiana
BP EXPLORATION (ALASKA) INC.
Anchorage, Alaska
CALMAT CO.
Los Angeles, California
CHEVRON U.S.A. INC.
San Francisco, California
CHINA CLAY PRODUCERS ASSOCIATION
Atlanta, Georgia
C-K ASSOCIATES, INC.
Baton Rouge, Louisiana
CONSOLIDATED NATURAL GAS CO.
Pittsburgh, Pennsylvania
DOMINGUE, SZABO & ASSOCIATES
Lafayette, Louisiana
ENTERGY CORPORATION
New Orleans, Louisiana
EXXON COMPANY, U.S.A.
Houston, Texas
FINA OIL & CHEMICAL COMPANY
Dallas, Texas
FIRST COMMERCE CORPORATION
New Orleans, Louisiana
FREEPORT-MCMORAN INC.
New Orleans, Louisiana
R. L. FIELD GREENHOUSES
Georgetown, Delaware
GEORGIA-PACIFIC CORPORATION
Atlanta, Georgia
HAMPTON BUSINESS PARK
Capitol Heights, Maryland
HOUMA-TERREBONNE CHAMBER OF COMMERCE
Houma, Louisiana
HUNT OIL COMPANY
Dallas, Texas
INTERNATIONAL COUNCIL OF SHOPPING CENTERS
Alexandria, Virginia
INTERSTATE NATURAL GAS ASSOCIATION
Washington, D.C.
KERR-MCGEE CORPORATION
Oklahoma City, Oklahoma
THE KOLL COMPANY
Huntington Beach, California
LAS CONCHAS PARTNERSHIPS
Slidell, Louisiana
THE LOUISIANA LAND & EXPLORATION COMPANY
New Orleans, Louisiana
LOUISIANA LANDOWNERS ASSOCIATION, INC.
Franklin, Louisiana
LOUISIANA NATURE AND SCIENCE CENTER
New Orleans, Louisiana
MISSISSIPPI GULF COAST WETLANDS COALITION
Pascagoula, Mississippi
MOBIL EXPLORATION & PRODUCING, U.S. INC.
Houston, Texas
THE MORGAN CITY HARBOR & TERMINAL DISTRICT
Morgan City, Louisiana
MURPHY EXPLORATION & PRODUCTION COMPANY
New Orleans, Louisiana
MUNICIPALITY OF ANCHORAGE
Anchorage, Alaska
NANA REGIONAL CORPORATION
Kotzebue, Alaska
NAT'L ASSN. OF HOMEBUILDERS
Washington, D.C.
NAT'L ASSN. OF STATE DEPARTMENTS OF AGRICULTURE
Washington, D.C.
NATIONAL COTTON COUNCIL
Memphis, Tennessee
NATIONAL STONE ASSOCIATION
Washington, D.C.
NATIONAL UTILITY CONTRACTORS ASSOCIATION
Arlington, Virginia
NATURAL GAS SUPPLY ASSOCIATION
Washington, D.C.
NORTH SLOPE BOROUGH
Barrow, Alaska
OCCIDENTAL OIL & GAS CORPORATION
Tulsa, Oklahoma
PANHANDLE EASTERN CORPORATION
Houston, Texas
PARKER DRILLING COMPANY
Tulsa, Oklahoma
PENNSYLVANIA LANDOWNERS ASSOCIATION
Harrisburg, Pennsylvania
PORT OF NEW ORLEANS
New Orleans, Louisiana
SHELL OIL COMPANY
Houston, Texas
SUN COMPANY, INC.
Wilmington, DE
T. BAKER SMITH & SON, INC.
Houma, Louisiana
TENNECO GAS
Houston, Texas
TERREBONNE PARISH CONSOLIDATED GOV'T
Houma, Louisiana
TEXACO U.S.A.
Houston, Texas
UNOCAL CORPORATION
Los Angeles, California
U. S. SILICA COMPANY
Berkley Springs, West Virginia
VIRGINIA PENINSULA CHAMBER OF COMMERCE
Hampton, Virginia
WALDEMAR S. NELSON & CO., INC.
New Orleans, Louisiana
WALK, HAYDEL AND ASSOCIATES, INC.
New Orleans, Louisiana
THE WILLIAMS COMPANIES, INC.
Tulsa, Oklahoma
THE ZAMIAS GROUP
Pittsburgh, Pennsylvania
MICHAEL ZUNICH & ASSOCIATES
North Ridgeville, Ohio

ATTACHMENT 2

STATEMENT OF PRINCIPLES
THE NATIONAL WETLANDS COALITION

The National Wetlands Coalition is a geographically and economically diverse group of public and private sector entities that have joined together to participate in the efforts of the Congress and the Administration to establish a comprehensive policy for effective conservation and management of the Nation's wetlands. The National Wetlands Coalition will support the adoption of the specific programs and policies that advance the objectives of wetlands conservation, consistent with the following principles:

1. THE CONGRESS OF THE UNITED STATES AND THE PRESIDENT SHOULD ESTABLISH A COMPREHENSIVE FEDERAL PROGRAM FOR MANAGING THE NATION'S WETLANDS RESOURCE BASE IN A MANNER THAT EFFECTIVELY AND SENSIBLY ACCOMMODATES THE COMPETING, LEGITIMATE DEMANDS FOR CONSERVATION AND USE OF WETLANDS RESOURCES.

2. GIVEN THE NUMBER AND DIVERSITY OF PEOPLE AFFECTED, AND THE ECONOMIC AND ENVIRONMENTAL IMPORTANCE OF THE WETLANDS RESOURCE BASE, A COMPREHENSIVE FEDERAL WETLANDS POLICY SHOULD BE THE PRODUCT OF A NATIONAL CONSENSUS-BUILDING PROCESS.

3. "NO OVERALL NET LOSS OF WETLANDS VALUES" IS AN APPROPRIATE GOAL FOR ACHIEVING THE EFFECTIVE CONSERVATION OF SIGNIFICANT WETLANDS VALUES AND FUNCTIONS. THIS GOAL SHOULD BE PURSUED BY IMPLEMENTATION OF A VARIETY OF THE REGULATORY AND NONREGULATORY PROGRAMS DESIGNED TO: CONSERVE THE HIGHEST VALUE WETLANDS; ENSURE THAT DEVELOPMENT ACTIVITIES IN WETLANDS CONSERVE WETLANDS VALUES AND FUNCTIONS TO THE MAXIMUM EXTENT PRACTICABLE; ELIMINATE OR STREAMLINE PROCEDURES FOR USE OF WETLANDS OF MARGINAL RESOURCE VALUE; AND, PROVIDE INCENTIVES FOR PRIVATE WETLANDS CONSERVATION EFFORTS.

4. PROTECTION OF THE NATION'S HIGH-VALUE WETLANDS, AND RESTORATION OF WETLANDS GENERALLY, WILL REQUIRE AGGRESSIVE NONREGULATORY PROGRAMS INCLUDING PUBLIC ACQUISITION AND INCENTIVES FOR SET-ASIDES AND FOR RESTORATION ACTIVITIES. FEDERAL FUNDING REQUIRED FOR SUCH PROGRAMS SHOULD BE FROM THE BROADEST SOURCES POSSIBLE WITH NO SINGLE INDUSTRY REQUIRED TO BEAR A DISPROPORTIONATE SHARE OF THE COST.

5. SUBSTANTIAL REFORM OF THE SECTION 404 PERMITTING PROCESS IS NECESSARY TO CONSOLIDATE AGENCY RESPONSIBILITY, TO EXPEDITE ROUTINE PERMITTING, TO INCREASE FLEXIBILITY IN THE PROGRAM, AND TO PROVIDE GREATER PREDICTABILITY IN ALL CASES. CRITICAL TO THE ESTABLISHMENT OF A SENSIBLE PERMITTING PROCESS IS THE RECOGNITION THAT ALL WETLANDS ARE NOT OF EQUAL VALUE AND THAT THE LEVEL OF REGULATION AND MITIGATION IMPOSED SHOULD VARY DEPENDING UPON FUNCTIONS AND VALUES OF AFFECTED WETLANDS, DEGREE AND DURATION OF IMPACT, AND THE SURROUNDING LAND USE.

07/19/90

ATTACHMENT 3

H.R. 350

"WETLANDS REFORM ACT OF 1993"

March 23, 1994

The Coalition strongly opposes the enactment of H.R. 350. The legislation contains some useful provisions, including certain provisions regarding activities exempt from regulation under Section 404, a training and certification program for wetlands delineators, funding assistance for delineations of wetlands by small landowners and a number of incentives for the conservation of privately owned wetlands. However, the negative aspects of the bill overwhelm these positive attributes. Among the negative aspects of H.R. 350 that the Coalition strongly opposes are the following:

H.R. 350 LEGISLATES THE "AVOIDANCE" TEST AND APPLIES THAT TEST TO GENERAL PERMITS:

Much of the controversy surrounding the current program can be traced to the "avoidance" test which has proven to be particularly inflexible and troublesome in marginal wetlands. Section 108 of HR. 350 exacerbates this problem by legislating this test, which is not now required by statute, and applying the test for the first time to general permits.

H.R. 350 REDUCES THE USEFULNESS OF GENERAL PERMITS:

The primary reason that the Section 404 program has not collapsed is that 60,000 to 80,000 activities annually are handled by general permits rather than individual Section 404 permits. H.R. 350 significantly reduces the usefulness of general permits by:

- requiring in Section 105 the concurrence of the EPA Administrator in the issuance of such permits;
- requiring in Section 105 the biennial review of each general permit rather than allowing general permits to be issued for 5 years as under current law; and
- requiring in Section 106 the application of the "avoidance test" to general permits.

H.R. 350 BROADLY EXPANDS THE ACTIVITIES TO BE REGULATED UNDER THE SECTION 404 PROGRAM:

The Coalition supports expanding the 404 program legislatively to cover "drainage, excavation and channelization" of wetlands. However, H.R. 350, through Section 102 and 103, broadly expands the Section 404 program to cover flooding, any diversion of water, clearing of vegetation and the placement of any material that changes the bottom elevation of a water body. Such a broad expansion of the program will paralyze the Corps of Engineers and destroy the 404 program.

H.R. 350 AUTHORIZES CITIZEN SUITS FOR ALLEGED SECTION 404 VIOLATIONS:

The Coalition believes strongly that if there is one thing the system does not need more of it is lawsuits. Authorizing citizen suits for perceived violations of Section 404 would simply be a disaster for the Federal court system and the citizens of the nation.

H.R. 350 RUNS COUNTER TO THE INITIATIVE TO STREAMLINE AND REINVENT GOVERNMENT:

In addition to failing to reduce the number of Federal agencies involved in the 404 program, H.R. 350 actually exacerbates this problem. Section 105 increases the role of the EPA in the issuance of general permits. Section 104 increases the bureaucratic burden by requiring the Corps to either adopt the recommendations of the Fish and Wildlife Service and the National Marine Fisheries Service with respect to individual 404 permits or respond in detail to such recommendations in writing. This requirement is particularly troublesome since the USF&WS and NMFS can take exactly opposite views with respect to specific individual permits.

H.R. 350 PROPOSES AN UNREALISTIC AND UNACHIEVABLE NATIONAL GOAL:

Section 101 of H.R. 350 proposes that the national goal should be the preservation of all remaining wetlands. If preservation means that no alterations can occur in the remaining 75 million acres of privately owned wetlands, this goal is unrealistic and unachievable.

ATTACHMENT 4

H.R. 3465

"WETLANDS PROTECTION AND MANAGEMENT ACT"

March 23, 1994

The Coalition does not support the enactment of H.R. 3465. H.R. 3465 contains some positive provisions including grants for state wetlands management plans, expedited permitting for small landowners, certain exemptions from the 404 program, a wetlands delineators training and certification program and a public education program. While H.R. 3465 is not, overall, as harmful as H.R. 350, this legislation contains provisions that the Coalition opposes and fails to provide the reform that the Coalition believes to be necessary. The Coalition specifically opposes the following provisions:

H.R. 3465 PROVIDES A "NO NET LOSS OF ACREAGE" TEST FOR EACH INDIVIDUAL PERMIT:

Section 6 of the bill requires the Corps to ensure, to the maximum extent practicable, that there is no net loss of wetlands acreage in every Section 404 permit that is issued. This is, perhaps, the most rigid permitting test yet proposed and, when coupled with citizen suits and third party access to the administrative appeal process, could render obtaining a Section 404 permit almost impossible.

H.R. 3465 UNDULY EXPANDS THE ACTIVITIES TO BE REGULATED UNDER SECTION 404:

The Coalition supports expanding the Section 404 program legislatively to cover drainage, excavation and channelization of wetlands. Section 15 of H.R. 3465 expands the 404 program much more broadly to cover "flooding," "placement of other obstructions," "diversion of water" and even broader categories of activities. The Coalition strongly opposes such a broad and indeterminant expansion of the 404 permitting program.

H.R. 3465 ALLOWS ADMINISTRATIVE APPEALS TO BE INITIATED BY THIRD PARTIES:

The President's plan that was issued on August 24, 1993, recognizes the need for an administrative appeals process for landowners and applicants for Section 404 permits. The President's plan limits access to the administrative appeals process to permit applicants and landowners who are dissatisfied with the delineation of their

land as a jurisdictional wetland. H.R. 3465 allows administrative appeals to be initiated by "any person who is adversely affected" by an appealable action and, in the case of the appeal of a denial or grant of a permit, "any person who has participated in the public comment process." This broadening of the appellate review process is so counterproductive that the Coalition would rather have no administrative appeal process rather than the process provided in Section 10 of H.R. 3465.

H.R. 3465 LIMITS MITIGATION BANKS TO THE POINT THAT PRIVATELY OWNED BANKS ARE NOT LIKELY TO BE DEVELOPED:

The President's plan allows mitigation banking projects for restoration, enhancement, creation and, in some circumstances, preservation of wetlands. The initial private banking projects that have been permitted, including the Florida Wetlandsbank in Broward County, Florida, do not require the mitigation to be completed in advance of the transfer of credits and do not require the mitigation bank to be part of a currently non-existent state restoration plan.

While appearing to encourage mitigation banking, Section 12 of H.R. 3465 actually discourages private sector mitigation banks by: restricting projects to restoration and enhancement; requiring that the mitigation be performed in advance of the transfer of credits; conditioning such banks on the existence of state restoration plans; requiring regulations to be issued by the Secretary of the Interior; and providing a regulatory standard for the price that can be charged for the banking credits.

H.R. 3465 IMPROPERLY TAXES ONE CLASS OF SECTION 404 PERMIT APPLICANTS TO BENEFIT A SECOND CLASS OF APPLICANTS:

The Coalition certainly agrees that minor wetlands disturbances and smaller landowners should be given relief from the Section 404 program. In fact, we would recommend the "deregulation" of these activities and this class of landowner. However, we strongly oppose Section 6 of H.R. 3465 which taxes Section 404 permit applicants $10 million annually to be used to assist a currently undefined class of "small" private landowners to comply with the Section 404 program.

THE PROGRAMMATIC GENERAL PERMIT PROVISION OF H.R. 3465 IS INADEQUATE:

Again, the idea of providing a programmatic general permit program to consolidate Federal, state, and local wetlands permitting is sound, but H.R. 3465 fails in the execution. Section 7 provides a programmatic general permit program by which the more routine and minor wetlands activities can be managed, but the provision is inadequate because: it does not extend to local and regional governments; it requires state programs to be "mini-404" programs; and allows four Federal agencies to review permit applications to, and decisions made by, the state program for consistency with the Federal program. In addition, the requirement that all state permits are subject to all Federal environmental laws is an expansion of current law. For instance, this provision would subject state permits to the controversial Section 7 consultation process of the Endangered Species Act.

H.R. 3465 EXACERBATES THE PROBLEM OF MULTIPLE FEDERAL AGENCY INVOLVEMENT IN THE SECTION 404 PROGRAM:

The Coalition believes strongly that the Section 404 program should be implemented solely by one Federal agency and believes that the Corps of Engineers is the best agency for the job. H.R. 3465 not only does not address the problem of multiple agency involvement, it exacerbates that problem. H.R. 3465 directs the Administrator of the EPA to issue most new regulations that are required by the bill and the Secretary of the Interior to issue the rules for mitigation banking. Meanwhile, the Corps continues to have the responsibility to implement the entire 404 program.

ATTACHMENT 5

THE PRESIDENT'S PLAN
"PROTECTING AMERICA'S WETLANDS: A
FAIR, FLEXIBLE AND EFFECTIVE APPROACH"
ISSUED AUGUST 24, 1993

March 23, 1994

The Coalition prefers the concepts offered in the President's Plan to either H.R. 350 or H.R. 3465. However, it is difficult to comment on the specifics of the program since most of the promised Executive Branch actions that will provide the substance of the plan have not yet been taken. Nevertheless, the Coalition likes the administrative appeals process that has been promised by the President; the fact that the Soil Conservation Service is to take the lead on the delineation of agricultural lands; the fact that the benefits of a broadly defined mitigation banking program are recognized; the recognition that all wetlands are not of equal value and that flexibility is needed in the Section 404 permitting methodology; and the fact that the benefits of "classification" of wetlands are recognized by incorporating "classification" in the proposed state wetlands and watershed management plans. The entire list of principles incorporated in the President's Plan is attached to this document.

The Coalition strongly opposes the expansion of the Section 404 permitting program through the adoption of the so-called Tulloch rule and is disappointed that the President's Plan does not address the legitimate concerns of the State of Alaska. The Coalition is also disappointed that the Administration has not submitted legislation to implement its plan and has not taken the promised action to implement the plan administratively.

THE PRINCIPLES OF THE PRESIDENT'S PLAN

**"Protecting America's Wetlands:
A Fair, Flexible and Effective Approach"**

August 24, 1993

* To affirm its commitment to conserving wetlands resources, the Administration will issue an Executive Order embracing the interim goal of no overall net loss of the Nation's remaining wetlands resource base, and a long-term goal of increasing the quality and quantity of the Nation's wetlands;

* To increase fairness in the wetlands permitting process, the Corps will establish an administrative appeals process so that landowners can seek speedy recourse if permits are denied without having to go to court;

* To make sure that decisions are made without delay, the Corps will establish deadlines for wetlands permitting decisions under the Clean Water Act;

* To reduce uncertainty for American farmers, the Corps and EPA issued a final regulation ensuring that approximately 53 million acres of prior converted cropland -- areas which no longer exhibit wetlands characteristics -- will not be subject to wetlands regulations;

* To reduce duplication and inconsistency for American farmers, the Soil Conservation Service will be the lead Federal agency responsible for identifying wetlands on agricultural lands under both the Clean Water Act and the Food Security Act;

* To close a loophole that has led to the degradation and destruction of wetlands, yesterday the Corps and EPA issued a final regulation to clarify the scope of activities regulated under the Clean Water Act;

* To emphasize that all wetlands are not of equal value, EPA and the Corps issued guidance to field staff highlighting the flexibility that exits to apply less vigorous permit review to small projects with minor environmental impacts;

* To ensure consistency and fairness, the Army Corps of Engineers, the Environmental Protection Agency, the Soil Conservation Service, and the Fish and Wildlife Service will all use the same procedures to identify wetland areas;

* To increase the predictability and environmental effectiveness of the Clean Water Act regulatory program and to help attain the no overall net loss goal, the Administration endorses the use of mitigation banks;

- To reduce the conflict that can result between wetlands protection and development when decisions are made on a permit-by-permit basis, the Administration strongly supports incentives for States and localities to engage in watershed planning;

- To provide effective incentives for farmers to restore wetlands on their property, the Administration will continue to support increased funding for the USDA's Wetlands Reserve Program; and

- To help attain the long-term goal of increasing the quantity and quality of the Nation's wetlands, the Administration will promote the restoration of damaged wetland areas through voluntary, non-regulatory programs.

ATTACHMENT 6

A BRIEF CHRONOLOGY OF THE HISTORY OF FEDERAL WETLANDS REGULATION

March 23, 1994

* From the early 19th century through the mid-20th century, federal policy favored the draining and/or filling of wetlands areas.

* In the late 19th century, Congress enacted the Rivers and Harbors legislation (the principal act passed in 1899). This legislation prohibited unauthorized obstructions to navigable waters and included a provision (termed the Refuse Act) that prohibited the discharge of refuse into any navigable water or tributary thereof, where navigation may be impeded or obstructed.

* In the mid-20th century, the Refuse Act became more widely viewed as a measure for controlling pollution. Two Supreme Court decisions in the 1960's sanctioned the use of the Act to prohibit pollution in navigable waters.

* In 1970, a United States Court of Appeals upheld the use of the Refuse Act to control pollution even where there was no effect on navigation (*Zabel v. Tabb*).

* In December 1970, President Nixon issued Executive Order No. 11574, directing the implementation of a permit program under the Refuse Act.

* The following year a district court held that the regulations implementing the program were invalid (*Kalur v. Resor*).

* In 1972, Congress enacted the Federal Water Pollution Control Act Amendments of 1972 ("FWPCA"), which includes section 404 governing the discharge of dredged or fill material into navigable waters at specified disposal sites.

* In 1975, a district court interpreted "navigable waters" to include waters not limited by the traditional tests of navigability but rather extends jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution (*NRDC v. Callaway*).

* In July 1975, the Corps issued new regulations implementing the FWPCA. These regulations established a lengthy classification of jurisdictional waters, which included:

    * intrastate lakes, rivers, and streams landward to their ordinary high water mark and up to their headwaters that are utilized by interstate travels for water related recreational purposes, for the removal of fish sold in interstate commerce, for industrial purposes by industries in interstate commerce or in the production of agricultural commodities sold or transported in interstate commerce;

- freshwater wetlands, marshes, swamps, shallows and similar areas that are contiguous or adjacent to other navigable waters and that support freshwater vegetation, where these areas are periodically inundated and are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction; and

- other waters the Corps determines necessitate regulation for the protection of water quality as expressed in the guidelines--such as intermittent rivers, streams, tributaries and perched wetlands that are not contiguous or adjacent to previously identified navigable waters.

* In May 1977, President Carter issued Executive Order No. 11990, which addressed the protection of wetlands on federal property.

* In 1977, the Corps issued revised regulations further clarifying its jurisdiction over navigable waters, including isolated lakes and wetlands, intermittent streams, prairie potholes, and certain other waters. These revised regulations included a specific discussion of the Corps' jurisdiction over wetlands.

* In December 1977, Congress amended the FWPCA, retaining the scope of regulatory authority over all discharges of dredged or fill material into any of the nation's waters.

* In September 1979, the Attorney General issues an opinion that the Administrator of the Environmental Protection Agency ("EPA"), rather than the Secretary of the Army, has the final administrative authority to interpret the meaning of the term "navigable waters."

* In 1985, the EPA clarified federal jurisdiction over isolated wetlands used by migratory birds.

* In 1985, the Supreme Court upholds regulation of adjacent wetlands (*United States v. Riverside Bayview Homes, Inc.*).

TESTIMONY OF
JAY J. VROOM
PRESIDENT
NATIONAL AGRICULTURAL CHEMICALS ASSOCIATION

FOR THE
UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON AGRICULTURE
SUBCOMMITTEE ON ENVIRONMENT, CREDIT AND RURAL DEVELOPMENT

NONPOINT SOURCE POLLUTION ON AGRICULTURAL LANDS
MARCH 23, 1994

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to provide written comments on nonpoint source (NPS) impact of agricultural pesticides on water quality as they pertain to the reauthorization of the Clean Water Act (CWA).

I represent the National Agricultural Chemicals Association (NACA), a not-for-profit trade organization of manufacturers and formulators of pest control products employed in agricultural production. NACA's membership is composed of the companies which produce and sell virtually all of the active ingredients found in crop protection materials and a large percentage of the formulated products registered for use in the United States.

We also represent an affiliated membership category of non-agricultural pesticides, which operates under the name RISE (Responsible Industry for a Sound Environment). Together, NACA and RISE address key pesticide issues, including the subject of today's hearing.

Agriculture Committee in CWA Reauthorization

Protecting our water resources is a critical role for our farmer customers. Agriculture, by necessity, involves the disturbance of soil and native species, the addition of various production inputs, and use of large quantities of water. Reconciling these requirements with the need to simultaneously protect water resources, aquatic species and the rest of the ecosystem has become one of the most important challenges facing agriculture.

We welcome this committee's involvement in the reauthorization process, providing Congress with needed perspective on balancing food production needs with those of environmental protection.

My comments today will examine three aspects of CWA reauthorization: (a) agriculture and pesticides in the NPS pollution debate; (b) important considerations for successful NPS legislation; and (c) our significant concerns with HR 3948, the Mineta/Boehlert clean water bill.

I. Agriculture and Pesticides in the NPS Pollution Debate

For twenty years, controlling toxics and water pollution has been primarily an end-of-pipe strategy, and clean water for human health reasons was a key driver. Many tens of billions of dollars were spent restricting releases to the environment. It was a successful effort - much progress has been made in water quality in America.

Now the focus has turned to nonpoint sources of pollution, and rightly or wrongly, agriculture is squarely in the spotlight. "Toxic" has been redefined to include a range of effects caused by clean soil sediment, nutrients and pesticide traces on various species of the food chain. "Impairment" has been redefined to include real and potential adverse impacts on water quality, aquatic species, habitat and other factors. And "navigable waters" has been redefined to include "ground" and "groundwater", as well as many other waters no boat could ever navigate.

Both the House and Senate reauthorization bills have attempted to legislate nonpoint source pollution coming from agriculture and other sources. Those of us in agriculture have expressed significant concerns about these bills, for both HR 3948 and S 1114 would severely impact on agricultural producers, both existing and new crop and livestock producers. Production costs would increase, affecting what crops and production locations are economical, and production technology would be forced to change, influencing availability, quality and cost of food. Indeed, this reauthorization could well be as important to the future of agriculture as the Farm Bill, affecting present and future agricultural policy and competitiveness.

Today, expectations for environmental protection reach far beyond agriculture's traditional aggressive commitment to soil and water conservation. Many now speak of restoration and protection of water resources at levels approaching pristine conditions as though this could be accomplished easily, quickly and without significant social and economic sacrifice. It is not clear that the current situation justifies such a dramatic approach.

As CWA reauthorization has turned to NPS and agriculture, language has been introduced that gives us pause, for it would move farmers into a regulated system of farming-by-permit by the end of the century. Enforcement measures, penalties and citizen suits are not part of the traditional concerns of producers facing the uncertainties of the typical growing season. And concepts such as integrated watershed planning, biodiversity protection, ecosystem criteria and national management measures are new concepts which everyone is struggling to understand, including ag producers. Surely there are effective solutions to managing NPS runoff which producers can enthusiastically support, solutions which take a more individualized, performance-based approach. We need to carefully consider which of these concepts are right for agriculture and how they overlap with existing programs already being followed by producers.

II. Important Considerations for Successful NPS Legislation

For several years, NACA has participated in the Clean Water Working Group (CWWG), a coalition of 37 agricultural and soil and water conservation organizations representing many millions of American farmers, ranchers, livestock producers, water suppliers and conservation workers. Two years ago CWWG advanced reauthorization principles which we believe are still valid. I would like to comment on several of these considerations in the current context of CWA reauthorization.

1. Risk/benefit Considerations: Agriculture and NACA share the public's respect and concern for the environment and are committed to our role in its protection. However, it is essential that risk based decision making form the basis of clean water protection strategies. The Clinton Administration's Executive Order on Regulatory Planning and Review (E.O. 12866) recognizes the importance of risk analysis as a cornerstone of regulatory policy development.

Risk analysis is a way of organizing what we know about a particular risk; for each there may be several courses of action, each with its own costs and benefits. It takes into account the frequency with which adverse impacts will occur and the likely magnitude of the impact. It also provides a mechanism for estimating the relative costs, and it provides decision makers with the tools to make more informed, science-based decisions.

Such a risk assessment process, supplemented with an effective cost-benefit analysis, will help focus limited resources on essential programs and requirements, while also going a long way to foster awareness and understanding among agricultural producers.

2. Targeted Response: HR 3948 would apply mandatory NPS programs nationwide, with no targeting of resources and funds to impaired waters. While it is true that NPS programs work best when they are locally developed, and site-specific in design and implementation, severe resource and manpower limitations quickly appear when one considers the development and nationwide implementation of complex, multi-year programs. For this reason, it is most appropriate that NPS programs embodied in a reauthorized CWA be targeted to impaired watersheds that are identified on the basis of sound monitoring and scientific assessment of water quality.

3. Adequate Timelines: Identification of impaired waters, development and approval of NPS plans, coordination of efforts and funds, and effective installation and maintenance of NPS management measures will take almost a decade, barring severe climatic setbacks. After that, another five years probably will be necessary before significant water quality improvement will be observed. Thus, effective NPS policy should allow 10 years for

planning and installation, and another 5 years for assessment of effectiveness.

4. Adequate Funding: Section 319 programs established by the 1987 Amendments to the Clean Water Act have been significantly underfunded. Through 1993 only $186.3 million was appropriated for this effort. Both HR 3948 and S 1114 recognize the importance of Section 319's site-specific approach to solving problems of critical watersheds and threatened ecosystems. We endorse the CWA's Section 319 as our national NPS policy and urge that the necessary funds be made available to the EPA and the states to strengthen and advance this valuable program.

5. Coordination with Existing Programs: Agriculture today faces a growing matrix of overlapping requirements dealing with water quality and aquatic species protection: Farm Bill programs such as Conservation Compliance, the Clean Water Act's wetlands provisions, FIFRA's state pesticide management plans, the Safe Drinking Water Act's groundwater protection programs, and the upcoming county-specific requirements of the Endangered Species Act, the Coastal Zone Management Act's enforceable management measures, and the upcoming Phase II NPS requirements of the Great Lakes Critical Program Act. In as much as several of these are the jurisdiction of this Committee, we support efforts to ensure that the goals, strategies and requirements, as well as timelines and funding, for these various statutes are carefully coordinated.

6. Improved Monitoring and Assessment: State 305(b) reports are today the principal source of data driving legislative and regulatory decision making on clean water. But they have been a highly-varied, statistical sampling of the waters, assessing only a small percentage of rivers, lakes, estuaries and other waters. In addition, these data are further limited because there are no set criteria under which states collect data. This hampers efforts to accurately identify impaired waters and apply risk-based prioritization of responses. We support a significantly increased attention to quality monitoring and scientific assessment of surface waters.

Continued groundwater assessment is important too. It is estimated that there are 10.5 million rural domestic wells and 95,000 community water system wells in America. In recent years, EPA has conducted national surveys of these wells to determine the frequency and extent of contamination by pesticides and other pollutants. The recent EPA National Survey of 126 pesticides and breakdown products in drinking water wells nationwide demonstrated that 96% of our nation's rural wells are free of measurable traces of any pesticide. From this survey, EPA estimated that more than 99% of all wells in the country contain no pesticides exceeding EPA standards for lifetime, safe consumption in drinking water. With this and other groundwater baseline in place, it is important that continued assessment form the basis for risk assessment decisions.

7. Incorporation of USDA Expertise, Technology and Programs: There are no explicit roles for USDA in the NPS management provisions of HR 3948, nor is the Conservation Compliance Program recognized as a qualified alternative to mandatory management measures. We believe that USDA field and technical experience, and successful conservation and water quality programs must be integral parts of any NPS program in a reauthorized CWA.

8. Flexibility for States and Local Groups to Incorporate Innovation, Growth of Operations and Climatic Setbacks: As experience implementing the Conservation Compliance Program has shown, flexibility is essential given the highly variable nature of specific sites, resource availability and climate. Therefore, we support the inclusion of program choices, opportunities for innovation, and provisions for economic hardship waivers, appeal processes and renegotiation of plans if warranted.

9. Defer to FIFRA for Pesticide Use Provisions: As this Committee is well aware, the development and use of pesticides in America are highly regulated through FIFRA, which also grants EPA extremely broad authority to minimize pesticide contamination of ground water and surface water through product labeling requirements governing use. A series of management options are used by EPA, including: (a) requirement of regional or nationwide water monitoring studies; (b) reduction of product use rates, methods or frequency; (c) use moratoriums; and (d) cancellation of product registration at the national level. State pesticide management plans are an integral part of this strategy.

It is appropriate that FIFRA, and not CWA, regulate pesticide data collection and use, and that ongoing water quality programs not be compromised by NPS management strategies of the CWA. FIFRA's required tests of toxicity, ecological effects and environmental fate provide the basis for effective pesticide regulation and water quality protection.

III. Other Significant Concerns With HR 3948

■ HR 3948 would extend the goal of the CWA to "Fishable, Swimmable and Drinkable", establishing a national policy that the Nation's waters achieve a level of quality appropriate for human consumption.

Problems: (a) there is no indication of whether this standard is applied to raw or processed water, (b) it extends drinking water protections to all waters and preempts state authority to designate beneficial uses, (c) it likely will trigger phased-in land use restrictions, (d) as an unfunded mandate, it could significantly affect user fees, (e) it could trigger exposures of agriculture to new enforcement and citizen suit provisions.

■ **It would extend the Nation's water policy to include the protection of groundwater. Any discharge of <u>any</u> pollutant (regulated or unregulated) into the <u>ground</u> or <u>groundwaters</u> is treated as a discharge into "navigable" waters if three provisions apply, and a groundwater discharge permit may be required. This provision directs EPA, within one year of enactment, to publish regulations providing guidance for effluent limitations for discharges into the ground or groundwater. A test for inclusion is provided.**

Problems: (a) no definition of "ground" or "groundwater" is included, (b) it requires major state expenditures on groundwater monitoring and protection, likely affecting fees, (c) it preempts existing groundwater protection programs of states, (d) it could federalize locally regulated chemigation/fertigation activities, restrict land application of wastewaters, sludge or organic mulch applications, (e) it could regulate class V injection wells such as irrigation return drainage basins, (f) it could require set-backs and buffer strips as part of the permit, affecting product use and rates.

■ **This bill would also establish a national policy of <u>pollution prevention through source reduction whenever feasible</u>.**

Problem: The provision discounts the importance of risk management through proper use and exposure reduction. Instead, it focuses on source reduction, which for pesticides means reduced use rates and frequencies. This is problematic also because the interpretation of this policy is left to EPA, the courts, and citizen groups who could use the expanded citizen suits provisions to sue for environmental damages.

■ **EPA must develop a list of acutely toxic, persistent, or bioaccumulative chemicals which pose a significant risk to human health and the environment. A NAS study is required of these chemicals to help determine what their risk is and what to do with them. EPA is also required within 3 years to develop non-point source criteria with respect to surface and groundwater quality.**

Problem: The NAS study is not warranted because the scientific justification for such a study on reproductive effects is not evident. Furthermore, the development of NPS criteria will be difficult for EPA. Pesticides and nutrients likely will be included and, pressed for time and resources, EPA will likely require agribusiness to provide much of the necessary criteria-development data.

■ **Antidegradation policies must be developed and implemented statewide within 2 years for protecting existing designated uses and sediment. If the quality of water and sediments is better than "fishable and swimmable", then that level must be maintained even if it's cleaner than needed to maintain the designated use. Outstanding Natural Resource Waters are especially protected, including national parks, wilderness areas, waters of exceptional**

recreational or ecological significance, and those waters just upstream from the protected areas.

Problem: These provisions have the potential to significantly limit the growth of agriculture and agribusiness, especially those upstream of ONRW areas. In many instances, development in these areas will be prevented or will be required to implement more stringent controls than elsewhere.

■ **Enforcement provisions of HR 3948 extend significantly EPA authority, and border on punishment rather than compliance. These primarily affect point sources, although citizens suits for past violations (6 month statute of limitations) and field citations for wetlands violations could affect ag and non-ag pesticide users.**

Problems: Major increases in administrative penalties, civil and criminal penalties. The bill broadens injunctive relief authority to include an order to require remedial measures or an environmental audit.

■ **HR 3948 authorizes EPA to issue regulations prohibiting or limiting the use of mixing zones for chemicals that are placed on a list of persistent, acutely toxic, or bioaccumulative chemicals.**

Problem: Mixing zones are a valuable tool for irrigated agriculture to discharge return flow waters. These waters may contain soil sediment and traces of salts, nutrients and pesticides picked up as the irrigation water moved across the fields. Mixing zones allow producers to meet water quality needs by allowing mixing of the irrigation return waters with in-stream waters within a carefully-delineated area. The traces of contaminants in these zones do not present an environmental risk. States must retain their authority to decide the appropriateness of using mixing zones, since this issue is highly site-specific and essential to irrigated agriculture.

■ **Non-point source pollution of surface and groundwater must be addressed in enforceable state NPS management plans.**

Problems: (a) the NPS provisions are applied too broadly, invoking mandates beyond impaired waters to include all farmers nationwide in 7 years, even if adjacent surface or groundwater is not impaired. Phases in NPS protection for 20% of waters per year, each cycle lasting 5 years; (b) enforceable policies and mechanisms are components of state NPS programs, with injunctive relief as a minimum enforcement; (c) landowners must use BMPMs (CZMA) or approved site-specific plans; (d) All waters must meet water quality standards by 2010; (e) 10-year exemption for those in CRP etc. but not to those in Conservation Compliance Program; (f) there is no obvious role for USDA in the bill, (g) wetlands reform is not considered; (h) rural economic development could be stifled by antidegradation; (i) the default to CZMA is unwarranted since this is not a proven program and it was designed only for protection of

fragile coastal estuaries and adjacent lands; (j) the CWA goal (including NPS) is source reduction rather than effective management (example: the Organic Certification Program is a qualified alternative "site-specific" water quality program, whereas the Conservation Compliance Program isn't); (k) the bill authorizes citizen suits for violations within past 6 months.

81-628 O - 94 (240)

ISBN 0-16-045929-X