44th ANNUAL CONVENTION

ASSOCIATION OF MIDWEST FISH AND WILDLIFE COMMISSIONERS



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PRESIDENT'S ADDRESS

WILLIAM J. BAILEY, JR.

Prior to the official welcome by our chief executive, the Governor of Nebraska, I would like to address a few remarks to the Association.

Our Commission and staff are pleased to host the 44th annual convention of the Association of Midwest Fish and Wildlife Commissioners. Our staff has entered into the preparation and conduct of this convention in a highly enthusiastic manner. They have done a lot of work. I wish to commend each and everyone for their personal attention to the details necessary for a successful meeting.

Under the guidance of our program committee and its chairman, Harold Edwards, we think the convention is structured in such a manner that each of the participants will gain from the discussion of timely topics as well as the interaction between participants, both socially and while in this room for conduct of formal business. I encourage each of you to participate actively and interact with the other participants to gain the most possible from this meeting. Each of us should return to our respective state, province, or agency with fresh ideas and commonality of purpose on many of the programs, activities and legislation which affect us all in attempting to administer programs to meet the needs of fish and wildlife resources and the citizens who utilize or are interested in these resources, for whatever purpose.

While in Nebraska, in my opinion, you will be at the crossroads of the nation from virtually any view you wish to take--geographically, culturally or historically. It is bisected by the 100th meridian and lies between the 40th and 43rd parallels. We are situated only a few miles north of the geographic center of the 48 contiguous states. It is truly middle America.

In common with other states, represented at this convention, we are a part of the breadbasket of the nation. Our economy is dominated by agriculture and agribusiness. Although the bulk of our population is now urban, we remain a rural private land state in philosophy and tradition.

We are not blessed with the public lands of many other states. Over 96% of our state is under private ownership. Only 1.5% of the state area is available for various public outdoor recreation activities. Much less, of course, is dedicated to the management of fish and wildlife resources. Consequently, our wildlife resources are largely produced and utilized on private land, and our fish and wildlife management programs must of necessity be largely oriented to private lands. Management decisions by private landowners on agricultural lands govern the welfare of our fish and wildlife resources. These decisions, stimulated by public policy and economics, continue to affect adversely the wildlife resource base--habitat.

Sunday evening, I scanned the transactions of the 9th annual meeting of this Association. This meeting was in 1942 during the early stages of

W.W. II. Discussions centered on administration of fish and wildlife programs in relation to the total national defense effort. Cutbacks of budgets and activities were necessary, including reduction of services related to propagation of fish and wildlife. The South Dakota representative stated in response to this discussion, "We do not have a problem in the propagation of game. Our problem is just the opposite. Take pheasants, for example, we have too many of them. I wish we could send some of them down to Kansas".

This problem, I am sure has since been corrected -- in South Dakota as well as all other pheasant producing states. I think in 1977 a few legitimate pheasant depredation complaints would be music to our ears, but this, of course, is not the case.

Continuing agricultural trends toward maximum production have resulted in aggravating and already declining wildlife resource base - habitat. I believe this is true of most states, especially within the pheasant range. This decline was not unexpected, and in fact, was predicted by our staff to our Commission and sportsmen of Nebraska. When Secretary Butz announced his agricultural policy, with his widely quoted statements, of "plowing from fence row to fence row and even including the fence rows." It did not take brilliance on our part to forecast the results. We lost over 600,000 acres of good to excellent nesting cover by elimination of the "setaside program" within the short period of 3 years. With these facts a hand and the knowledge that secure nesting cover is the critical habitat type for perpetuation of a good huntable population of pheasants, what other conclusion could be reached. Although the most dramatic decline has been with pheasants, I am confident that other wildlife species, both game and non-game, have also suffered as a result.

This is a common problem to each of us in the farm belt. It is not a new problem, but one that continually becomes more critical. What possible solution is there? -- A solution which promises to maintain a healthy, viable agricultural economy and yet yields the population of wildlife, both game and non-game, necessary to satisfy the desires and needs of the citizens, whom we serve.

This problem produced a reaction in Nebraska. With the backing of many organized sportsmen, the legislature, substantially increased the fees for hunting and fishing in our state. You will hear more about this program during the conference, but its intent was to provide a funding base to substantially increase our activities in the acquisition and management of wildlife habitats. I often heard the question "How much is the hunter willing to pay to perpetuate his sport? -- I think we are on the verge on finding out in Nebraska. We knew there would be attrition of permit sales, how much was the question. At this point it is impossible to say, but we are vitally concerned. Our permit sales by the end of the year may equal past years, but at this time, it appears the cash flow of income resulting from hunting license sales has dramatically changed from previous years. Hunters, we think, are buying their fishing and hunting license on the installment plan, but permit sales are substantially below last years sales at this time.

In 1942 the fish and wildlife agencies were reducing budgets in response to the total defense effort. This, of course, resulted in reduced services in the area of fish and wildlife management.

Most of our state fish and wildlife agencies continue to be funded principally, if not entirely by revenues generated by the hunter and fishermen. In the absence of periodic license fee increases to offset increased operating costs, it seems to me that each of us are in the same position as the administrators in 1942. Our income is rather static and yet the costs of providing services from that static income continues to spiral upwards. Cost of materials, personal services, utilities, transportation and many of the other support items necessary to complete our mission have increased drastically over the past few years. Without comparable increases in income, can we possibly expect to provide the same services.

The dollar will only buy so much and no more. Something has to give. I suggest that this is one of the major problems facing each of you as administrators today. Demands are for increased services rather than decreased services, yet the cost of these services must be paid. As with retired couples living on a rather static income, it will force us to reexamine, possibly reorder some of the priorities to accomplish those things which must be done. This is, has and will be a challenge.

I have enjoyed working with our staff to set up the 44th annual convention. We think it will be a productive convention. I also look forward to serving the remaining 5 1/2 months as your president and implementing some of the actions which you take this week.

Enjoy yourselves, interact and participate!

INTRODUCTION OF GOVERNOR

BAILEY: This is really a pleasant chore for me to introduce our Chief Executive, the Governor of Nebraska, the Honorable J. J. Exon. Governor Exon has been our Governor since 1971. We are limited to two terms here so he is in his last term of office. I can assure you he has had a great deal of support from the people of Nebraska. I think every poll I look at, Governor Exon, where they ask how you are doing your job, there is about 80-85 percent that seem to support you wholeheartedly and the way you have conducted your office.

I have been here in this state now for some 22 years, and Governor Exon is the first governor I have known that I think is a dyed-in-the-wool outdoor sportsman--from the standpoint of both hunting and fishing. He enjoys sitting in the duck blind; he pursues our pheasants. And Governor, from the reports I have been getting in our office, you have not been having too much luck on pheasants here recently. This is one of our problems.

He enjoys fishing and one little comment about the fishing. Our First Lady apparently outdoes him occasionally when it comes to fishing. She is a dyed-in-the-wool fisherwoman. She thoroughly enjoys it and she takes advantage of our fishery resource, I think, about every opportunity she has.

Governor Exon, it is a real pleasure for me to introduce you. We are a small group, but we have the principal administrators of the wildlife agencies of 14 states and two provinces of Canada here, as well as a pretty good representation of the top administrators of the Fish and Wildlife Service. At this time, again, it gives me a great deal of pleasure to present the Honorable J. J. Exon, Governor of the State of Nebraska.

Governor Exon was scheduled to go turkey-hunting with our Director this spring. He didn't quite make it. But we had one of our employees, Dick Turpin, construct a personalized turkey call that he was to have used. And you didn't get an opportunity to use that turkey call, Governor Exon, so it gives me a great deal of pleasure to present your personalized turkey call to you.

GOVENOR EXON

Thank you very much, and welcome to all of you here to Lincoln, Nebraska, for this most important conference. I would have prefered that this had been a turkey rather than a turkey call. I haven't tried this out yet, but Cliff is over there demanding that I give you a demonstration of how

I cannot call turkeys. But it is something like this if I remember right. 'Bout right? I'll accept a round of applause.

Thank you very much. I was scheduled to go, but I came down with a hard case of the flu and was not able to make it with my good friend, Gene Mahoney, who I think you all know as the Director of our Department.

Bill, once again I knew it, but I was pleased to see that you are the Chairman of this organization. I do not know how long you serve as Chairman. When does your term expire?

BAILEY: At the end of this calendar year.

GOVERNOR: At the end of this calendar year. Well, the reason I ask that question-there has been an outcry in Nebraska. Everybody is saying and sighing "Bill Bailey, won't you please come home." We assume, at the end of the year, Bill, you will be back on your job full-time. Well, I suspect that most of you know, that as far as Nebraska is concerned, not only does our Commission oversee our fish and wildlife resources and the development of those which have been going forward very satisfactorily; but also we have the parks of the State of Nebraska under our Commission.

So, with that three-fold thrust, we have been continuing to put more and more money from Nebraska taxpayers into this most important activity. And while the taxpayers of Nebraska, like the taxpayers in each one of your states and provinces always complain about the expenditure of monies, especially when taxes go up, I have yet to hear any complaint about the money we spend for our fish, wildlife and park development. Because certainly we all know, with the ever increasing population that we have, and the ever increasing amount of people who want to get out and go somewhere and do something in this area on their weekends, their long weekends-and we seem to have more and more of those all the time--plus the fact that more and more people in Nebraska and in your individual states and provinces are looking closer to home for their vacations because of the ever escalating costs of energy, our parks become that much more valuable. And, I want to compliment our people for the excellent job that you have done, Bill, and of course I was kidding about your coming home again. Bill Bailey has been there for a long, long time, along with many of the other Nebraska people that you see here. And they are so ably headed by Gene Mahoney, my old hunting and fishing friend, who is doing an outstanding job for all of us in the State of Nebraska.

And Gene, and Bill, and your crew, I don't have an opportunity enough to thank you. But, I thank you publicly here this morning for the really great job that you have done.

I have done a great deal of hunting and fishing in Nebraska and some other states, and I have enjoyed, frankly, the last six years in a row I believe, a trip to our friends to the North-Canada-where I also get in some great fishing. Almost as good as the fishing we have here in the good old State of Nebraska. In fact, I was in northern Saskatchewan for a week with my wife.

I want to correct you. I do not refer to my wife as a fisherwoman, although she is that. She fishes all of the time, and certainly knows much more about the great fishing holes in this part of the state than I do, because she fishes on the average of two days a week. But I keep this in tune with the modern-day context and languages-I refer to my wife as a fisherperson. I believe that is the correct terminology, and I wanted to correct you on that.

Needless to say, I also will tentatively be going on a five or six day Arctic char mission in the Northwest Territory over near Eskimo Point, inland from Eskimo Point, around August 15. I have never caught an Arctic char and that is one of the things I would like to do. We have every species of fish in the world except the Arctic char in Nebraska, so I think I have a very legitimate reason. Gene, is it okay if I go up there to catch some char.

I notice that, as far as those representing the United States here today, I notice that not only are you a very closely knit group, but I believe this is your 44th conference of this type. But I also notice that most of the so-called football powers of the United States of America are represented here. Nebraska, in addition to being number one in many, many things, including our fish and wildlife and park facilities, is also number one or near number one each and every year in football. I did not want any of you to have come so far to get by without that being mentioned to you at least once during your stay here.

Many of you may want to know what the situation is as far as the Nebraska football team is concerned this year. After a season last year where we lost three games, and of course that is always a catastrophe when we lose any games in Nebraska, but the latest word I have from the coaching staff, and I keep close track of them, is that we will definitely have 11 men to field this year when we open our season the first part of September, and we should be going hopefully full blast when we play one of our arch rivals, Alabama, on the 17th day of September. It is indeed a big football season. Of course, football is a very important part of our life here in Nebraska.

But I don't want you to think we think only of football, because there are other important things of course. And despite the fact that we are tremendously proud of our football team and the record and the notoriety that they have given to us here, including the shipping of some excellent football players like Johnny Rogers up North to Canada where they play football also. We are very proud of our academic qualities of our University of Nebraska and our other colleges.

And to show you that we have always put football in its proper perspective, I want you to know that your wives will be touring the University of Nebraska this morning. I hope you will have a chance to get up there. And you will see, I think, and be very proud of what we in Nebraska are doing. Because we feel that we have our football program now well established and on the way-we are not going to let up on that-but we think also other parts of the University should be given attention. So under my leadership, we are presently building our first academic classroom

building on the University of Nebraska campus. I sure hope that you see that one building. It's right next to the football stadium.

Well, if I can be serious then for just a few moments. I think all of us realize and recognize that we have problems in our area today when we talk about fish and wildlife and what it means to all of us. We are under continuing attack, it seems to me, from some sources that do not understand the importance of the activities that we are all very much concerned about and thoroughly recognize. There are those who have never hunted or fished and therefore, have not been exposed to what a great part of life that really is. And there are those who would like to see no one in the United States have any kind of gun for any reason. And there are those in the United States that continually paint a false picture. Because not only are each and every one of us in this room hunters and fishermen, but first, I am sure, we are all conservationists.

But we don't have to conserve, Gene, quite as much on pheasants as we have been conserving; I didn't have very good luck hunting pheasants last year, and I have hunted them all my life. I say that jokingly.

Nevertheless, I think it is important to realize that we do have ever mounting opposition to what we think and what, for years, has been a very important part of America's way of life. Propaganda? Yes! False statements? Yes! We are painted in some quarters as a group of people who go out in the field, and shoot at anything that crawls, or walks, or flys. We are considered a menace to the wildlife of these United States and certainly our friends to the North in Canada.

Well, all of that of course is not true. Because, I want to emphasize once again, above everything else, we are the people who are concerned about the real environment. We are the people who are concerned about maintaining our species. And we can point I think with great pride to the fact that the whooping crane, for example, which was a species that was very rightly on the endangered species list. Now the whooping crane is coming back because of the work of people like you-the people who are associated with you in helping to maintain a good quality of life and certainly for the protection and the development of our wildlife. Were it not for the strides that we have made, then we certainly would not see the abundance of game and fish that we see now.

It is always strange to me when we talk about environment and pollution today. I remember as a very, very young lad in the early days of the deep depression and the deep drought that hit our part of the country in the early 1930's. I lived in Lake Andes, South Dakota, where I was born and raised. There was a natural lake there, and during that drought period, the lake went completely dry. There just wasn't enough water to sustain a lake that had been there as far back as anyone could remember. It killed all of the fish in that lake, and it eliminated that lake as a main stopover ground for ducks and geese on their annual pilgrimage south in the winter and north in the summer.

And so it was with great pride, we all felt-and the environmentalists in those days said it was the greatest thing that ever happened-came back in and the lake that had gone completely dry was starting to be used as

farmland. That condition exists again this year in 1977. And we were all proud of the fact that the Corps of Engineers came in, divided that lake up, put in some wells, and once again we had a Lake Andes, not just for the economic value that brought to the local community, but more importantly the fact that we were sustaining wildlife iteself. And now, unfortunately, it seems that everytime that anybody talks about a single dam, for any purpose, anywhere, we are attacked as being destroyers of wildlife. Certainly I think that maybe some of those who criticize us the most would agree that you have to have water to have fish, although that question is never asked them as often as it should be.

One of the worst things that I have seen in this area of misconception, misdirection, and outright false propaganda, was the show that was produced by one of the national networks within the last year or year and a half entitled "The Guns of Autumn." I suspect that all of you have seen that picture, that so-called "documentary" that was seen on national television where it showed basically some people who I would not consider hunters, certainly not sportsmen, going into fenced-in private game areas and cutting up bear cubs with a knife. Those shots were shown over and over again. It showed these so-called "hunters" that were described on this program, or at least you were led to believe that they were typical hunters, shooting a 12-guage shotgun at a bear up in a tree four or five feet away. Comments were made like, "Is this sportsmanship?" No that is not sportsmanship! But the story was not told! That is not what 99 percent of the so-called fishermen and hunters do in the United States of America. And still that policy persists.

Another thing I think we must guard against is people who are concerned about hunting and fishing-the good life as we call it here in Nebraska.

We must guard against some parts of the Federal government who think that they know best and are in a position to maybe dictate to your agencies on how we should proceed. We need the cooperation of the Federal Government but we do not need their mandates and we do not need their dictates. We can use some of their money, but as far as the state of Nebraska is concerned, while I am Governor of this state, I say we tell the Federal government, "Keep your money if you are going to attempt to tell us in precise detail how we run every part of our Game and Parks Commission in the State of Nebraska."

I think that the battle is still there. It is still on, and I frankly have been amazed when I have been in some of the metropolitan centers of the United States talking with some of my relatives and some of my friends, that they take this matter very seriously. I was asked a question in the last year from a friend of a relative I was visiting, "You certainly don't hunt or fish do you, Governor?" I said, "Oh yes I do...I've hunted and fished since I was old enough to carry a gun." That varies from place to place, but in South Dakota, when you are about 10 years old you start to carry a gun because you are brought up in that atmosphere. And, you know, they looked at me in almost horror at the fact that a governor of a state would set such a terrible example at being part of killing off-the term I think was used as "emasculate"-the wild creatures that are attempting survival on this planet.

Maybe we haven't done our job. Maybe we haven't sold this as well as we should. But I tell you in all sincerity, ladies and gentlemen, that that is a story. That is a message that we must carry forward. As far as the State of Nebraska is concerned, although there are those who believe that way, it is not a feeling or an attitude that gets very far.

But the State of Nebraska is only one state of all the states of this great union of ours. I am afraid that the feeling that prevails here may well not prevail in some of the states represented here and certainly in some of the states not represented in your particular conference.

I came here, then, this morning just to say welcome. Welcome to Lincoln, Nebraska. We are very proud of our capitol city. We are very proud of Nebraska. We are very proud of the fine job that is being done by Gene Mahoney, Bill and people at our Game and Parks Commission. And I suspect that the same can be said of every governor in each and every one of the states and provinces represented here. Keep up the good work, ladies and gentlemen. Tell the story that must be told as well as the need to recognize that if we are going to keep the support that we now have, we are going to have to invest more and more money in these very important recreational services that are provided by states and by provinces.

Thank you very much for coming. A hearty, hearty welcome and have a great conference. And I know that Bill and Gene will be reporting to me of what was accomplished at this meeting. Thanks very much. Thanks for the turkey call--I will use it this fall.

BAILEY: Governor Exon, thank you very much for those remarks. I think that will kick off our group to where we can get some good work done.

GOVERNOR: Thank you, Bill.

KEYNOTE ADDRESS

Dr. Robert S. Cook
The New Deputy Director of the Fish and Wildlife Service

I bring you greetings from the Assistant Secretary Herbst and also his regrets that he couldn't be here with you today; however, I really appreciate this opportunity to appear before you. Not only is Bob Herbst representative as the new Deputy Director of the Fish and Wildlife Service, but as a fellow conservationist, environmentalist and educator. While I have worked in the professional field, the last 10 years I've spent teaching at the University of Wisconsin, Green Bay. Sitting in the classroom talking about theory, I thought it was about time that I got out there and put some of this to the test and get a few lumps and bruises rather than sit back in the neat isolation of academia and from what I hear that would come about in not too distant future.

Needless to say, I am looking forward to being part of your organization and working with you in the various organizations that you represent in my new assignment with the Fish and Wildlife Service. After hearing President Carter's environmental message, all of you are undoubtedly keenly aware of his commitment to provide a quality environment for all Americans which is after all one of our inherent rights as part of our heritage. This commitment is evidenced by the appointment of such totally devoted and highly respected men as our new Secretary of the Interior, Cecil Andres, also from your very own organization; Assistant Secretary for Fish and Wildlife and Parks, Bob Herbst; and the reappointment of Lynn Greenwalt as Director of the Fish and Wildlife Service. In talking with Washington this morning, I learned that Lynn Greenwalt has now received his Congressional reappointment; he did not have to go back through the hearing and so he is officially reinstated as Director of the Fish and Wildlife Service which I know is good news to you.

Under the leadership of these men we can all look forward to many new and exciting challenges over the next several years, and I'm proud to be able to participate in those efforts. We are all paying full incentive to the many environmental problems facing us today--pollution, energy, endangered species, uncontrolled flood plain development, diminishing wetlands, and countless other forms of habitat destruction. This list could go on and on and on. We're also familiar with the traditional roles we play as conservationists in attempting to solve these problems. We can look at our achievements with pride and say that we are making significant progress in many areas.

Much national, state and local legislation has been passed in recent years to control unwarranted destructive actions and new funds have been made available to partially mitigate some of these actions. The Fish and Wildlife Service, with only about 5,000 employees nationwide, has made remarkable progress in the last few years to fulfill its obligation to become the biological arm of the Federal Government and to play a major role in structuring the future of our fish and wildlife resources. Outstanding achievements have been recorded in our endangered species program in both the national and the international scene. Federal projects or

projects involving federal licenses or funding are being much more closely scrutinized for the effects these projects will have on the resource. Extensive research, much of which is being directed by our Office of Biological Services, is being done to evaluate environmental changes that will occur as a result of energy development -- geothermal gas, oil and coal. Wetlands are being identified as part of an over-all plan to protect those resources.

The National Wildlife Refuge System continues to grow and expand, especially with the added incentive of the Bicentennial Land Heritage Program. This program is providing approximately 1/4 of a billion dollars over the next five years to upgrade the present refuge system. None of that money will be spent on acquiring new refuges or developing new refuges, but this money will go specifically for the present refuge system-- bringing it up to date, getting programs into action that we've all wanted to do but never had the funds to do it.

Our efforts in fish culture, disease work, and in wildlife disease work continue at a high level. We can all boast about the good things we're doing, just like many of you can rightfully boast about the many good things you are doing. The question is how much more can we do? One of the problems many of us face is our inability to venture very far beyond our own small sphere of knowledge or interests or responsibility. As a result we see without really seeing the whole picture. We hear without really hearing about the whole picture. We react a certain way because we perceive that's the way we're expected to react. We do not communicate completely with as many people as we should be about the problems that we're involved with, everyday problems and outgoing problems.

It reminds me of the football coach who lost his first string quarterback in the middle of the big game. His substitute had never been in a game before and looked anxiously at the coach for instructions when he was going in. He listened intently, as the coach said, "I want you go to in, we've got the ball. On the first three plays I want you to take the ball, run right up the middle, and then on the fourth play drop back and kick it". So the substitute went into the game, the ball was snapped back, he went up the middle for twenty yards. Second play came along, ball was centered, grabbed it, went up the middle for 25 yards. On the third down, the ball was centered back and by golly he went right up the middle down to the two yard line. Now you guessed it. The fourth time he handled the ball, he dropped back and kicked it clear out of the stadium. When running over the side lines the coach was tearing his hair, screaming, what in the world were you thinking about when you kicked that ball on that fourth play. The substitute replied, coach he said, I couldn't help think but how stupid you were for having me kick in that situation. Now obviously, the point of the story is the communication gap. Thinking for yourself. And I submit to you that we create communication gaps with the public when we hang on, nonbending to our traditional roles, and fail to venture beyond our own small spheres.

Fish and wildlife management and environmental concerns are everyone's concerns and we are going to have to become much bolder, step out of our traditional roles and help people to better understand and appreciate

their resources through vigorous people-oriented programs. Not too long ago, Director Lynn Greenwalt appeared before the Senate Interior Insular Affairs Committee Sub-committee on parks and recreation, and in his testimony Lynn said, "We in the fish and wildlife service view our role in recreation to be far more than providing just hunting and fishing. We believe that we must do all we can to promote harmony between man and his environment. To create an awareness and sensitivity on the part of the public to those major environmental issues which society must come to understand in order to insure man's survival in a quality environment". In his concluding remarks, Lynn also said, "It is our desire to make our lands models of communication between man and his environment and to expand understanding and appreciation of wildlife and wildlands ecology. The idea of being that people can appreciate to a fuller extent those situations that they understand rather than those situations that are kept closed to them and they have to sit back and wonder about what's going on". These words are significant and I'm sure that most of you have been hearing similar statements from other quarters over the years. Unfortunately, it's a lot like the weather. We talk a lot about it, but no one does anything about it. We in the Fish and Wildlife Service, however, are going to do something about it and, in like, challenge each of you to participate in this endeavor.

In trying to make our lands models of communication between man and his environment, I should be saying people and their environment in an effort to make this communication a real living thing. We're not going to eliminate our role as traditional managers of the fish and wildlife resource. Instead we are going to capitalize in our role as managers, venture beyond our own small sphere and expand our current activities to include more public involvement in our programs and provide learning opportunities for everyone visiting service lands. We are going to make a concentrated effort to reach everyone with viable, workable, environmental message beginning with kindergarten students and carrying on through high school and university level. We hope to reach out to both professional and nonprofessional groups and organizations.

Of course, a great deal of emphasis will be directed toward the casual visitor to the Fish and Wildlife Service centers. Programs will be both formal and informal using the most innovative ideas we can muster to communicate with those people whom we serve. Close cooperation with the states will also be vital in order to create a synergistic effort as a result of our mutual educational programs. We want people to understand what an ecosystem is, how it operates, and importantly how they as people relate to that ecosystem and are a part of it. Ecology is just not a buzz word of the seventies, but it is a living dynamic relationship of organisms and system. People must understand how each action they initiate no matter how small or seemingly unimportant may effect the very fiber of the system of which they are a part. This is essential if we are to, as Lynn said, create an awareness and sensitivity on the part of the public to those major environmental issues which society must come to understand in order to assure man's survival in a quality environment.

People must understand that passing laws and passing out of money will not solve all of our problems. Everyone of us has a stake in the future, and

we had better all get involved so as to produce some positive action designed to accomplish environmental improvement and resource management both through our individual and cooperative efforts. The Fish and Wildlife Service has consistently used certain educational proficies as tools to communicating concerns to the public. This has been accomplished primarily through formal environmental education, through interpretation and through general informational programs. We have been rather successful in spite of the fact that we have really not concentrated our efforts for developing opportunities for more meaningful visitor experiences. All of this is going to change; it has to change if we are to help set the stage for future fish and wildlife management decisions.

President Carter has expressed his concerns over the many factors effecting environment. Pollution and toxic materials, water resources and wetlands, wildlife and wildlife habitat, energy, the global environment in our national, cultural and national heritage programs that are being implemented now. The President said that each of these conserves in its own way affects the environment and together they underscore the importance of environmental protection in all of our lives. In expounding on wildlife resources, the President said, when explorers and settlers from Europe first came to America they were astonished at the richness and variety of wildlife in our lands and waters. Pheasants were so abundant for years; most Americans valued only game species or wildlife. Our allocation of federal funds for wildlife research and management still reflects this outdated method. He went on to say 97 out of every 100 federal wildlife dollars are devoted to less than 1% of vertebrate species which are hunted or fished for commerce or sport. To the rest, little attention has been given even though they are a part of the biological system that sustains the huntable species and we as people in this nation.

Notice that President Carter is reflecting on factors affecting the environment or, putting it another way, the entire biological system. Although none of us are strangers to environmental problems, many of us still do not quite understand or agree on what it is all about. The word environment, I think, is an obstacle. It has been used by many people as an encompassing term and it is open to interpretation by as many individuals as seek to interpret it. As a result of a specific charge by Secretary Andres, a task force in the Interior Department has been established to develop a policy position which will be the basis for carrying out concerns to the public and for providing learning opportunities on all Department of Interior lands so that we can begin to understand what it is all about. To be fully effective, extraordinary cooperation will be required between the different federal agencies as well as between the federal agencies and state and local governments and other organizations. This is necessary if we are to meet the challenge put before us by the President in his environmental message. The environmental talk is approaching the 11th hour.

We heard about some of the changes in the management programs that need to take place. We've heard about the need for furnishing recreational

opportunities closer to the concentrations of people because of the energy involved in getting people to distant places for recreation. What are we going to do about it, what are wo doing to do about providing funds for the management of the nongame species that are still an integral part of the eco-system that involves the game species? People are demanding more, and hunters and fisherman are in less of a position to be able to finance the entire programs that are needed to sustain that resource. Is it going to be business as usual or do we get people involved through meaningful learning programs? I believe your answer is the same as ours. We must do the best we can to get people to understand those vital relationships that exist in our natural and manmade systems, to understand that people can have significant, positive and negative effects on the system and, lastly, to recognize the public agencies are striving to manage those systems to provide maximum benefits to the people and the resources. This will require a great effort by all of us to provide the necessary educational opportunities.

I think you can tell by the number of times that I've used education and stressed educational programs that education is my background. Since this is the first time I've had a chance to take a crack at a group like yours, I wanted to be on ground that I'm familiar with. But I want to say that I am wholeheartedly in belief that education is a very integral part of resource management and that you will be hearing a lot more about this in the future. This effort must be a coordinative one involving federal, state, and local and private agencies. We cannot leave this task to the formal educational system. We must all work together in this vital common cause, our survival depends on it.

COMMENTS AND OBSERVATIONS

HIGHLIGHTS OF FISCAL YEAR 1977
U.S. Fish and Wildlife Service

Harvey K. Nelson, Associate Director
Fish & Wildlife Resources

It is my pleasure to meet with the Association of Midwest Game and Fish Commissioners again, and to report on some of the more significant "happenings" that are of principal concern to the U.S. Fish and Wildlife Service the past year. Much of what I would like to relay to you will also have a direct impact on our collective programs for the future. This "Highlights Statement" is similar to that presented at the Federal-Provincial Wildlife Conference in Winnipeg, Manitoba, July 5-7, 1977, and may be somewhat repetitious to some of you who were there.

First, I would like to expand further on some highlights from President Carter's Environmental Message which was sent to Congress on May 23. This document, along with several accompanying Executive Orders, firmly charts the direction the Federal Government will be taking in environmental affairs, most of which relate one way or another to our Nation's wildlife resources.

President Carter identified several major activity areas in his environmental message that are especially important to the Fish and Wildlife Service.

These are actions to:

--Control pollution and protect public health.
--Assure environmentally sound energy development.
--Improve the urban environment.
--Protect our natural resources.
--Preserve our national heritage.
--Affirm our concern for the global environment.
-Improve implementation of environmental laws.

In the Wildlife area, he emphasized need for:

--A $295 million 5-year program to rehabilitate and improve the Wildlife Refuge System.
--Increased emphasis on nongame wildlife.
--An accelerated effort to identify habitat critical to the survival and recovery of endangered species.
--An Executive Order restricting the introduction of potentially harmful foreign plants and animals into the United States.
--An Executive Order for wetlands protection.
--An Executive Order for flood plain management.

We have already seen the first fruits of the President's labors. One of the most significant is the new Bicentennial Land Heritage Program

which I will discuss later in more detail. Obviously, the new Presidential directives will provide unprecedented opportunities for the U.S. Fish and Wildlife Service to more effectively perform its diverse responsibilities.

EFFECTS OF THE DROUGHT

Shortly after the country recovered from one of the worst winters in decades, we are faced with an even more serious problem; perhaps the worst drought of the century. We have spent the last several months planning for and assessing its impact.

The most serious effects of the drought will be on the anadromous fish species of the Columbia River system and the coastal streams in the Northwest. Already steelhead spawning in most coastal and inland streams is predicted to be minimal because of lack of water to let them ascend to spawning sites. As drought conditions continue, later runs of anadromous fish will face even more severe spawning problems. Not only this year's fish will be affected but last year's fingerlings still in freshwater could be lost.

Reduced water levels will similarly impact wildlife. Waterfowl nests have suffered increased predation. Fowl cholera and botulism will likely increase as waterfowl concentrate in remaining water areas. Waterfowl food will be less abundant, and fall feeding flights could cause serious depredation problems.

Early this year, Service project leaders were instructed to list all drought caused problems and to develop contingency plans to lessen its impact.

At National Fish Hatcheries, supplemental sources of water are being investigated. Recycling existing water is being considered. Other plans call for releasing fish at less than normal stocking size, moving non-anadromous trout out to make room for needed salmon and steelhead production, and moving fish from hatcheries where the water supply is diminishing to those with more stable supplies.

On some National Wildlife Refuges, plans call for obtaining water prior to the irrigation season and holding it as long as possible. Some of the less productive water areas will be allowed to dry up, and their water will be directed into "high use" units. Intake canals are being cleaned to increase water flow efficiency and use. Some refuges may have to reduce grazing activities and others may have to close public use areas.

Many of these problems can best be solved by cooperative Federal/State action. There are already joint plans to coordinate adult salmon trapping and stripping, the use of hatchery facilities, fish distribution units, and release schedules.

The U.S. Congress is also concerned about the drought and they reacted by passing the Emergency Drought Act of 1977 which was signed into law by

the President on April 7, 1977. This Act allows qualified applicants to obtain loans, grants and deferments to remedy the effects of actual or prospective substantial economic injury resulting from the 1976-77 drought. Of special interest to us is a section of this Act which authorizes expenditures to mitigate drought damages to fish and wildlife resources. Reimbursable funds, up to $10 million, may be expended by the Secretary of the Interior to purchase or otherwise acquire available water or entitlement to water. Both State and Federal agencies can qualify for these moneys and their applications are presently being processed. Some of you are presently involved in these negotiations. It appears that nearly all of the $10 million will be expended for its intended purpose.

BICENTENNIAL LAND HERITAGE PROGRAM

The National Wildlife Refuge System will benefit substantially from actions recently taken by the Administration and the Congress. These actions represent a package collectively known as the Bicentennial Land Heritage Program. This program, which actually was conceived in mid-1976, will provide fiscal and manpower resources of unprecedented magnitude for the Refuge System. Specifically, BLHP will result in an additional 500 personnel ceilings. Ultimately the vast majority of these ceilings will be utilized for refuge field staff. Initially, 270 will be assigned to the field and the remainder will be utilized to beef up our currently undermanned engineering, contracting, realty, and support staffs. The latter action is necessary over the short term in order to accomplish the construction and rehabilitation phase of the program.

A total of $250 million will be appropriated over the next 5 years (FY 77FY 81) for rehabilitation of existing facilities and development of new facilities on refuges. Seven million dollars of the total has been appropriated this fiscal year and $30 million is proposed for FY 78. In future years the proposed funding for rehabilitation and construction is as follows: FY 79, $80 million; FY 80, $93 million; and FY 81, $40 million.

In addition to the construction funds, $7.0 million will be added to base funding for the NWRS for operations and maintenance and to finance personnel costs associated with the 500 new personnel ceilings.

BLHP also makes available $13.25 million from the Land and Water Conservation Fund for land acquisition. These funds will be used to acquire high quality habitat for endangered species and other wildlife.

Collectively, BLHP will serve a number of purposes. The added ceilings will provide badly needed staffing on older refuges and limited "start-up" staffs for refuges added to the system in recent years. The increased professional staff will provide additional biological and management expertise which will enable us to do a better job of managing habitat and wildlife populations. We will also be able to hire other professionals to assist in developing a high quality interpretive and environmental education program on refuges.

The increased construction funds will serve to reverse the current trend of benefits lost due to deteriorating facilities. Our entire

rehabilitation backlog of $108 million will be accommodated by BLHP funds. Significant increased benefits will accrue from the expansion of facilities and improved management capability resulting from new developments. While the funding level will be insufficient to accomplish all new development needs on refuges, it will enable us to construct the highest priority projects. Improvement of wildlife habitats will be emphasized in ranking projects for accomplishment.

In total, BLHP represents a badly needed shot in the arm for the Fish and Wildlife Service. Also included was an additional 50 personnel ceilings and $5.0 million for expanding our Ecological Services and Biological Services programs, and an additional $10.0 million for wetland acquisition.

MIGRATORY BIRDS

U.S.-U.S.S.R. Migratory Bird and Environment Treaty

On November 11, 1976, a treaty titled Convention Between the United States of America and the Union of Soviet Socialist Republics Concerning the Conservation of Migratory Birds and Their Environments was signed. The far-reaching treaty, which will soon go to the Senate for ratification, covers more than 200 migratory species representing 36 families of birds of mutual interest to the United States and the Soviet Union. In addition to the usual provisions for protecting migratory birds, the Convention provides for:

--Reducing or eliminating pollution or other habitat destruction.
--Establishing a warning system regarding environmental catastrophes affecting designated migratory birds.
--Protection of endangered migratory birds.
--Coordinating research activities and exchanging scientific information.
--Establishing and managing preserves, refuges, and protected areas.

Obviously, this treaty breaks new ground in the area of migratory bird management.

Non-Toxic Shot

This fall the use of steel shot for waterfowl hunting will be implemented in the Mississippi Flyway and expanded in the Atlantic Flyway. Steel shot was first required last season in parts of nine Atlantic Flyway States. This year it will be expanded significantly into portions of 13 Atlantic Flyway States, a total area accounting for about 25 percent of the flyway's historic duck harvest. In the Mississippi Flyway, steel shot will be required in designated portions of 11 States where approximately 20 percent of the flyway's duck harvest normally occurs. The plan calls for expansion of the non-toxic shot program into the Central and Pacific Flyways during the 1978 waterfowl season.

The decision to begin the implementation of the use of steel shot has been highly controversial and legal efforts last year by the National

Rifle Association to delay the program in the Atlantic Flyway were resolved in the Department's favor on December 17, 1976. We hope that through increased educational efforts the insidious problems of lead poisoning and our attempts to resolve them will be better understood by waterfowl hunters.

Shooting Hours Law Suit

Regulations that permit migratory game bird hunting from one-half hour before sunrise to sunset have been in effect for many years in the United States. These hours were challenged in U.S. District Court last fall by Defenders of Wildlife. The U.S. District Court ruled that the 1976-77 regulations establishing shooting hours were arbitrary in the sense that the rulemaking proceedings did not give sufficient attention to the possible impact on protected species. Also, the U.S. Fish and Wildlife Service was directed to focus more sharply on the possible impact of shooting hours upon protected species while developing 1977-78 hunting regulations. Consequently, the Service is conducting the studies called for by the court and expects to complete them in time for consideration during the rulemaking process for the 1977-78 hunting regulations.

September Hunting of Mourning Doves

In developing the migratory bird hunting regulations for 1977-78, there has been increased opposition to opening of seasons for mourning doves in September because of the alleged impact on doves still mating. We have just completed an Environmental Assessment on this issue and we don't believe there is sufficient evidence to indicate any major impact of September hunting on the continental mourning dove population. We will all likely hear more on this issue.

Executive Orders on Wetland Protection and Flood Plain Management

The Wetland protection order directs each Federal agency to minimize destruction, loss, or degradation of wetlands and to preserve and enhance wetlands in carrying out its responsibilities for acquiring and managing lands; for providing federally undertaken, financed, or assisted construction and improvements; and in conducting Federal activities affecting land use, including water and related land resources planning, regulatory, and licensing activities. Federal agencies are mandated to avoid undertaking or providing assistance for new construction located in wetlands unless there is no practicable alternative and, when construction in the wetland cannot be avoided, all practicable measures must be taken to minimize damage to the wetlands. These provisions take effect October 1, 1977. The order does not apply to certain projects already underway.

The Executive Order on flood plains incorporates essentially the same mandates as does the wetlands order. In addition, it requires that proposed construction in a flood plain must be made public including circulation of an explanation why the project must be built in the flood plain. In the context of the Executive Order, flood plains are defined as areas subject to a 1 percent or greater chance of flooding in any given year. Federal agencies have 1 year to develop regulations and procedures needed to comply with this order.

Accelerated Migratory Bird Habitat Acquisition Program

New program objectives, priorities, and policies are being implemented this year for our accelerated waterfowl habitat acquisition program. Funding is derived primarily from the sale of "duck stamps" and from advance appropriations from a wetland loan fund that is to be repaid eventually from duck stamp receipts. The revised objective of this program is to preserve through the use of fee and easement purchases approximately 1.9 million additional acres of waterfowl habitat, primarily wetlands in key breeding and wintering areas, over the next 10 to 15 years. Emphasis will be on natural habitats that are threatened with near-term loss. Some of the highest priority areas include the glaciated prairie pothole region, California's Central Valley and coastal marshes, key black duck wintering habitat on the Atlantic Coast, lower Mississippi River bottomland hardwood wintering areas, and coastal wintering marshes of Texas and Louisiana.

The 1977 funding level is approximately $26 million. Approximately 75,000 acres are being purchased with these funds. Major purchases are in the prairie pothole region, the Texas coast, and Mississippi River delta, along with smaller additions to existing refuges in all four waterfowl flyways.

The President's environmental message included a proposed increase of $50 million over the next 5 years for waterfowl habitat acquisition, thus affirming the Administration's intent to request advance appropriations from the Wetland Loan Fund. President Carter also urged the Congress to enact legislation to increase the price of the "duck stamp" to help finance the acquisition of wetlands and achieve our new 1.9 million-acre objective.

Oil Spills and Migratory Birds

In 1976 and 1977 a number of major oil spills occurred in and adjacent to U.S. waters. The most serious damage to birds resulted from the spillage of approximately 250,000 gallons of #6 fuel oil into Chesapeake Bay in February 1976. More than 10,000 waterfowl and other birds were known to have died from oiling, and another 10,000 to 20,000 were estimated to have been killed but not found. The more subtle impacts of both major and minor spills on migratory birds will not be known for years, if ever.

As a result of the serious and increasing problem with oil spills, and of high public and Congressional interest in this area, an intensive in-house contingency planning and preparedness effort was initiated this year. A service-wide oil spill contingency plan was prepared and distributed to improve the Service's response capability at all organizational levels. Efforts were initiated to develop a comprehensive oil spill-wildlife protection program, including research needs, pre-spill preparedness, and an effective spill response capability.

Ecological Impact of Petroleum on Birds

New research at the Patuxent Wildlife Research Center at Laurel, Maryland, is evaluating the effects of petroleum on the survival and reproduction of birds. Experimental studies have shown that even a minute

droplet of oil, such as might be carried on feathers, kills substantial proportions of embryos of both mallard ducks and eiders. Susceptibility to the toxic effects was greatest at the early stages of development and diminished with age. Larger amounts of oil in the diet of mallard ducks resulted in loss of weight and decreased egg-laying. Subtle effects on fat metabolism were evident when ducks were given low amounts of vanadium, a metal often present in crude oil.

Ice and Waterfowl Starvation

Weather conditions and resultant starvation seldom result in massive waterfowl mortality; however, such a situation arose last winter in the Long Island to Chesapeake Bay area. Extremely low temperatures in December and January produced record ice thicknesses over much of this area, including the deep saline waters of Long Island Sound, the Delaware Bay and Chesapeake Bay. Prolonged ice coverage denied wintering waterfowl, especially brant and black ducks, access to usual food supplies. Emergency feeding programs somewhat alleviated the threat to grain-eating species like the black duck but substitute foods were ignored by brant, which normally feed upon submergent aquatics such as eelgrass and sea lettuce. Many brant shifted to lawns in residential areas and golf courses where they vigorously defended small grazing areas from intruders. Large numbers of brant died from starvation. A survey in November placed the Atlantic brant population at about 115,000 birds. By mid-February, just after ice breakup, another survey indicated that only about 55,000 birds were still alive. Weakened brant continued to die, and only about 40,000 were tallied this spring. Since 1948, the lowest number of wintering brant ever recorded was 40,700 birds in January 1973. Although the northward flight this spring consisted almost exclusively of breeding-age birds, it seems probable that poor body condition, in combination with the stress of migration, may result in depressed reproductive effort and production.

CWS-FWS Program Review Committee

Our joint Program Review Committee, which was established in 1975, has continued to meet at least twice each year. I am personally very pleased with this arrangement and believe the Committee has been highly effective in coordinating a variety of wildlife management and research activities of special interest to Canada and the United States. While much of the Committee's action has concerned technical problems in the migratory bird area, they have also helped surface specific management issues and policy problems that require the attention of Director General Loughrey and Director Greenwalt.

During the past year the Committee developed a procedure for distributing the results of their deliberations to the respective Provinces, States, and other organizations. We will try to do a better job of getting this information to you in a more timely fashion.

FISHERY RESOURCES

In the fishery resources area, we have three major programs: Coastal Anadromous Fisheries, Great Lakes Fisheries, and Inland Fisheries and

Reservoirs. Other programs which also involve fishery activities are Habitat Preservation, Endangered Species, and Federal Aid to the States in Sport Fish Restoration.

The national goal of our fishery activities is to assist in meeting the public demand for fishing while maintaining the Nation's fishes and their habitats at a level and in a condition that will ensure their perpetuation.

Major Water Quality Problems

The persistence and widespread dispersion of Polychlorinated Biphenyls (PCB's) and Mirex in the Great Lakes is seriously affecting the use of the fishery resources and is of great concern. High levels of PCB's are found in fish in all the lakes. Because of Mirex contamination in Lake Ontario around Niagara Falls, New York has prohibited possession and/or sale of most species, including lake trout, coho, and chinook salmon.

Canadian as well as U.S. officials are in the process of creating investigative programs as well as drafting legislation to control toxicant chemicals, particularly PCB's. Two recent recommendations were suggested: one, that the discharges of these chemicals into the Great Lakes be drastically reduced, and another that the use of contaminated fish for human consumption should be strictly regulated. Closer monitoring of future or new industrial materials will be made in order to avoid the recurrence of present problems.

The significance of the presence of many compounds, including toxaphene, naphthalene, lindane, and chlordane is unknown. The recent reports of Mirex in Lake Ontario fish add support to the need for programs capable of detecting and controlling the build up of toxic substances in the Great Lakes environment.

Probably the biggest mystery and problem in our Great Lakes program has been the failure of the lake trout in Lake Michigan to reproduce. We suspect it has something to do with the water quality of the lake, but still can't say for sure.

Chemical control of sea lampreys has enabled a tremendous sport fishery to develop in Lake Michigan. By the middle of the 1960's, the lamprey population had been reduced by almost 90 percent, and since that time, about 2 million, 5-to 6-inch hatchery-reared lake trout have been stocked annually.

It is estimated that the lake now contains about 4 million large lake trout having a total weight of 20 million pounds. In 1975 there were enough mature lake trout in Lake Michigan to spawn over 1 billion eggs. Yet, no naturally produced lake trout have been found, although eggs taken from lake fish develop and survive very well when brought into hatcheries.

In Lake Superior, natural reproduction of lake trout has gradually increased. In some areas, natural reproduction provides 50 to 75 percent of the population.

Until we have some sort of a breakthrough on this matter, the only way a lake trout population can be maintained in Lake Michigan is by stocking hatchery fish.

Fishery Research

There were several especially noteworthy accomplishments in the area of fishery research in the last year. Service biologists, working with a private firm, developed a safe, effective, and economical new method of immunizing large numbers of small fishes. Fish are immunized by placing them in a salt solution for about 2 minutes, then in the vaccine solution for about 3 minutes. Vaccine is taken into the fish via the lateral line and gills. Using this procedure, salmonids have been successfully immunized against enteric redmouth bacteria and infectious hematopoietic necrosis virus. Effective vaccination by this procedure will significantly reduce losses from these diseases. Although the method was developed primarily to deliver vaccines to fish, it could be used to administer chemothapeutics, markers, essential nutrients, or other substances otherwise considered difficult to administer to large numbers of fish.

Procedures for rapid diagnosis of three problem fish diseases were also developed. Two serious bacterial fish diseases, enteric redmouth and kidney disease, and one parasitic disease, whirling disease, can now be diagnosed within 2 hours. A new procedure using infected fish tissue and an ultraviolet microscope provides sensitive and accurate diagnosis and detection of the diseases. With this procedure, more effective prevention and control of the diseases is possible.

Considerable research and development effort was also expended in gathering information needed to satisfy Environmental Protection Agency and Food and Drug Administration requirements for registration of several chemicals which are used to control fish diseases and parasites.

Research biologists found that a new selective toxicant, or carpicide, killed carp, but did not affect bluegills, largemouth bass, and channel catfish in the same ponds. This chemical shows great promise as a fishery management tool and is undergoing detailed research to determine its effectiveness and safety for large-scale fish cultural practices.

ENDANGERED SPECIES

Perhaps one of the most publicized areas of Service involvement has been the Endangered Species Program. Rapid progress is being made in the area of implementing both the Endangered Species Act and the International Convention on Endangered Flora and Fauna of the World which went into effect May 23, 1977.

Most of you are aware of this program by reading in the newspapers how a 3-inch fish can block a $100 million dam. Such dilemmas have a mixed effect on the Act. On the one hand they bring strong pressures to change it, and on the other, they serve as a valuable tool in teaching our citizens what the real plight of endangered species is. Unfortunately, the publicity surrounding a few of the more difficult to resolve conflicts--such as the snail dater-Telico Dam situation in Tennessee and the furbish

lousewart-Dickey Lincoln project controversy in Maine--have created the impression that the endangered species law is going to play havoc with construction projects and commercial development all over the country. Actually, there have been more than 150 conficts between various endangered species and public or private projects. The vast majority have been solved through negotiation and compromise. Generally, the solution has been to modify the project-by shifting the path of a road for example or by cutting down less timber so as to spare the habitat of an endangered population.

One of the most productive accomplishments as far as endangered species go was the signing of 17 cooperative agreements with States. These agreements will greatly aid the administration of the program by bringing many more conservation officers and wildlife biologists into the endangered species program. Moreover, the States and territories possess millions of acres of land that provide habitat for many of the endangered American species of animals. Better habitat management and protection for these species is the goal of the cooperative program.

Twelve more teams of wildlife experts were added to the ranks of already existing Endangered Species Recovery Teams, bringing the total to 57 teams now established for 68 listed species. Each team develops a recovery plan designed to the specific needs of one animal of several animals occupying a common ecosystem. A recovery plan outlines actions needed to restore a species to a more secure position in its ecosystem and eventually, it is hoped, qualify it for removal from the list of endangered and threatened species.

To assist Federal agencies in complying with Section 7 of the Act, guidelines were prepared and transmitted to Federal agencies. Section 7 prohibits Federal agencies from authorizing; funding, or carrying out any action which would jeopardize the continued existence of any species. In conjunction with this, the Fish and Wildlife Service completed over 150 formal Section 7 consultations with other Federal agencies last year. Of that figure, the Service has directly or indirectly been involved in four major court cases (Indiana bat, Mississippi sandhill crane, snail darter, and red-cockaded woodpecker). So you can see that most of the conflicts were resolved through accommodation.

Considerable progress was made last year in the area of listing species. Eight butterflies became the first insects to be added to the endangered or threatened lists. Twenty-two species of mussels became the first mollusks listed. Additional protection was also given to a number of species of amphibians, reptiles, birds, mammals, and fishes. In all there are now 613 species on the endangered list including 174 native to the United States. In addition there are 11 threatened species in the United States, along with 17 foreign species.

A highly significant delisting also occurred last year when most of the Nation's alligators were removed from the endangered species list--a testimony to the effectiveness of Federal and State laws and vigorous enforcement. For the second year in a row, Louisiana held a controlled hunting season for alligators.

Significant headway was also made in the area of implementing all sections of the Endangered Species Act and in changing regulations to ease the paperwork burden and correct some of the inequities caused by the Act.

Zoos, game bird breeders, circuses, and other persons who breed and raise endangered species in captivity can now buy and sell certain of these animals in foreign and interstate commerce because of a new rulemaking. The concept of captive-bred, self-sustaining populations enabled the Service to relax restrictions and permit procedures for qualified breeders of certain endangered species. So far it has been determined that 11 endangered species of large cats, birds, and primates exist in this country as stable, separate populations from the wild, capable of perpetuating themselves in captivity. These populations, classified as threatened, include the tiger, leopard, and jaguar. The rule recognizes that breeders play a vital role in the conservation of endangered species. It reduces regulation of their activities and relieves them of undue paperwork, delays, and a cumbersome permit procedure.

Final regulations that would regulate endangered plants were also published along with a proposal to list more than 1,700 species. Listing of the first 14 species of endangered plants is expected shortly.

The International Convention, which went into effect on May 23, has been implemented in 34 other countries. The treaty will do much to help control commercial trade in order to prevent the decline of species threatened with extinction. We expect that it will help to halt the "laundering" of wildlife and plant products through third countries. Last November, representatives from 37 nations met in Berne, Switzerland, for the first time since the treaty was negotiated by 80 nations in 1973. Over 100 changes were made in the lists of animals protected, and detailed criteria were established for listing or delisting species. Efforts were made toward developing standardized identification aides, guidelines on the care and shipment of live specimens, and solving other legal and administrative problems.

A new Federal Wildlife Permit Office was established to help implement the Convention and also act as a clearinghouse for most permits issued by the Federal Government involving wildlife. The overall goal of this office is to simplify the paperwork for scientists, zookeepers, and others in legitimate activities involving federally protected wildlife.

One of the most promising endangered species programs is the renovation of Dexter National Fish Hatchery in New Mexico into an endangered fisheries holding and propagation center. Nine species and sub-species of southwestern fish are presently being held in outdoor ponds, and with expansion and renovation this number could be increased dramatically. Dexter is a stop-gap measure to maintain a reserve gene pool of native fish species until their natural habitat can be restored or stabilized to again support its native species.

Less than a year ago, a monthly information service, the Endangered Species Technical Bulletin, was inaugurated for all agencies and organizations--Federal, State, and private--cooperating in the program. Since the program

has become fully operational and is moving ahead quickly, more and more people have become involved. So, the primary objective of the publication is to foster communication among professionals in the field and explain the program's activities to them.

Articles in the bulletin also discuss some of the difficult biological and legal considerations which the Service must make in administering the program. It will also present the views of readers--how they feel the decisions should be made and how they have made their own decisions in the field-and pass along to others their hard-earned lessons.

One of the greatest achievements in the endangered species program came in the area of research on whooping cranes. It looks as though 1977 will be the best year on record for the species. The 1976 transplant, as most of you know, was reasonably successful with a total of six juveniles arriving at Bosque del Apache National Wildlife Refuge and returning to Grays Lake after spending the winter there. This year 16 eggs were flown to Grays Lake from Wood Buffalo Park on May 20 and as of last month, 12 had survived.

ANIMAL DAMAGE CONTROL

Animal Damage control is one of the least understood and most controversial of the Service's programs. In carrying out our dual responsibility for protecting human health, livestock, and agricultural crops as well as assuring wildlife protection, it often becomes necessary to control certain wildlife species. Although many non-lethal methods are utilized by this program, it is the lethal methods-primarily directed toward coyotes and blackbirds-which have been the targets of highly emotional arguments. For the average citizen, unfortunately, these appeals tend to cloud the real issues of animal damage control programs.

In addition to controlling coyote and blackbird damage, ADC activities include the removal of grizzly bears (which are live-trapped, tagged, and relocated) that have strayed into populated areas and cause livestock losses; control of seagulls preying on and/or competing with other bird species; control of birds posing hazards to aircraft; and live trapping and relocating golden eagles preying on livestock. In resolving these conflicts, the Service seeks a balanced approach that gives equal attention to the protection of the environment and to the management of animals that cause significant problems.

Because of continued problems with golden eagles preying on lambs and goats in several Western States, the Service is actively considering the development of a comprehensive Golden Eagle Management Plan for this species. The problem became so severe on one ranch that 215 golden eagles were livetrapped and transplanted to a distant location in 1975 and 1976, but the ranch still suffered its worst loss of lambs to eagles in its history. Eagles do not pose a significant problem to the livestock industry as a whole, but as in this example, some ranchers can suffer considerable losses.

The comprehensive policy on the control of wintering blackbirds and starlings which pose hazards to agricultural crops human health and safety

was issued in October 1976. Under the policy guidelines, the Department of the Interior allows the removal of up to 10 percent of the national blackbird postbreeding population through the use of lethal control methods. Starlings make up approximately 20 percent of the national blackbird population.

HABITAT PRESERVATION

Planning to Minimize Habitat Loss

Fish and Wildlife Service biologists provide assistance and advice to a number of agencies in planning Federal and federally assisted water resource development projects in an effort to minimize the impacts on fish and wildlife habitat in project areas. These activities have a profound effect on fish and wildlife, since water is essential to the well-being of both terrestrial and acquatic species.

Another project which has had significant adverse impact on the Nation's wildlife resources, but which has received little national or local attention, is the Corps of Engineer's Missouri River Bank Stabilization and Navigation Project for that area of the river from Sioux City, Iowa, to the mouth of the river at St. Louis, Missouri. This project, originally begun in the late 1800's, was designed to drain adjacent wetlands for agriculture, and as a result, the wide, meandering Missouri River has been constricted to a swift flowing navigation ditch. In the process, approximately 200,000 acres of shallow waters, chutes, sloughs, oxbows, and wetlands have been destroyed. Numerous unconnected islands, which once provided luxuriant cover for wildlife and protected resting grounds for migratory waterfowl, have long since been obliterated.

The Service also provides advice and assistance in the planning of water and related land development projects to applicants for permits or licenses, and consults with the Federal regulatory agencies which issue permits and licenses for these activities. Although projects constructed under permits and licenses are often considerably smaller in size than federally financed projects, they number in the tens of thousands each year, and thus have the potential for even greater ecological damage.

Pollutants in the Environment

Activities in this program are aimed at evaluating the effects of pesticides, industrial chemicals, heavy metals, and other contaminants on fish and wildlife and their habitat. The chemical degradation of our environment, although largely unseen, can be just as disastrous to fish and wildlife as the physical destruction of their habitat.

The tremendous advances in analytical chemistry in the last few years have enabled researchers from the Service and other agencies to monitor the occurrence and trends of selected environmental contaminants. The public health "scares" you periodically read about in the newspapers, such as those over PCB's, DDE, and mercury are not so much new problems as they are discoveries and documentation of long existing ones.

Our environmental contaminants program documents existing problems and evaluates, through considerable laboratory and field research, the possible long-term effects of new pesticides on fish and wildlife.

Biological Services

A third activity under habitat preservation is our Biological Services Program which develops applied information on fish and wildlife resources and their habitats and makes it widely available to governmental decision-makers and others concerned with environmental protection. We believe that because this kind of ecological information was not readily available in an easily useable form in the past, many decisions resulted in the permanent destruction of prime habitat and unnecessary degradation of the environment.

The program describes ecological resources and the anticipated impacts of development. It identifies those decision options and alternatives which would be least harmful to fish and wildlife and their supporting habitat. Biological Services consists of a series of projects, each designed to attack a specific environmental problem or information need. These projects fall into three categories: those directly resulting from energy development (coal extraction and conversion, oil shale, geothermal, powerplant siting, and Outer Continental Shelf oil and gas), those associated with other land and water development problems (stream alterations, coastal ecosystems, Western water allocation, habitat classification and analysis, and non-energy mineral extraction), and those of a supporting nature (information transfer, national wetland inventory, and environmental indicators).

OTHER ITEMS

Just last month we signed a major contract with Yale University which will conduct a study to determine trends in American attitudes and behavior toward wildlife and natural habitats. The study will cover the distribution, social characteristics, size, and attitudes of both nonconsumptive and consumptive users of wildlife. This wide-ranging study will provide information on how youths develop their attitudes toward wildlife. It will help us to understand the symbolic value of wildlife to Americans, particularly endangered species. It will identify attitudes various social and demographic groups have toward specific issues affecting wildlife and their natural habitats. We hope this project will give us the critical attitudinal data necessary to make sound decisions affecting the wildlife-related needs of our broad constituency.

The Director indicated last year that he was planning to implement the area office concept nationwide. This has now been done and we are in the final stages of establishing and staffing 13 additional area offices, for a total of 18. The Area Managers are line supervisors under the Regional Directors. This system will help bring the Service's activities closer to the States and the public, and places responsible people at the field level with authority to effectively manage those activities.

In closing I would like to again extend Director Greenwalt's regrets for not being able to attend your session today. He also asked me to express his sincere thanks for your continuing support, and to let you know that while you lost a valuable Commissioner from your local ranks, we gained an Assistant Secretary that we are most pleased to have on the Washington scene.

FOSSIL FUEL DEPLETION EFFECTS ON FISH & WILDLIFE

Terry McGowan
Office of Biological Services
U.S. Fish and Wildlife Service
Ft. Collins, CO

I'm not going to particularly comment on Scot's presentation. I'm going to talk primarily on the western lands, but I think before I do start into my presentation I would like to read something from the Act, which is being considered right now in Congress.

> "The establishment on regraded areas and all other lands affected a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area of land to be affected and capable of regeneration of cover to the natural vegetation of the area except that introduced species may be used in the revegation process where desirable and necessary to achieve the approved post mining land use plan."

So I think there are quite a few opportunities for wildlife objectives. I think the plan is the place to get the imput in. These plans are required by law if the law passes and I assume that it will.

I think I'll contrast for you some of the differences in the western United States where most coal resources occur with those in the eastern and mid western areas. There are very significant differences; for one thing the federal ownership seems to be the driving force which permits the opportunity for wildlife programs. I don't need to go into all of the prestatements about dwindling oil and gas resources and the likelihood that we'll be depending on coal that depends on a lot of variables like how fast we can swing what we have, whether we continue to import oils from foreign nations, and perhaps what kind of money we put in solar energy and other forms; geothermal, shale, etc.

The second part of what I want to talk to you about is some of the activities of the Fish and Wildlife Service regional activities, area office activities and some of the activities of the Office of Biological Services and namely those of the western energy and land use team where most of their manpower and monies are tied up. So we'll assume that coal will be one of the major energy sources.

So the differences between eastern-midwestern development and those proposed for the west are very significant. I think we want to talk to those first.

First of all, the communities in the east are well established. Many of them were established because of coal mining, some, as you know, many decades ago. This is not true in the west. Most of the coal resources lie in areas of the west that are practically virgin lands. Some of them are inhabited by very few individuals, primarily ranchers in a few communities, and some areas are uninhabited. There are existing transportation and transmission networks occurring in the east and the midwest for power, for

hauling coal, for hauling or transmitting other kinds of energy. They're very limited in the west and in many cases they're nonexistant. Okay, in terms of impact, in spite of the pictures you saw, there is a tremendous number of abandoned mine areas in eastern and the midwestern United States that are basically unreclaimed; they are contributing acid to the natural streams of the area. They still, after forty or fifty years since the mining act occurred, are still contributing sediment to the streams and I'm talking primarily about those lands that were mined before there were laws and that's most of them because the laws are fairly recent in most eastern states and midwestern states. Now those are basically the impacts. Of course, they have a lot of secondary impacts, a lot of effects that are magnified in the aquatic terrestrial environment. In the west, different kinds of impact can be expected. For one thing many of the coal resources in the west are not associated with toxic chemicals. Many of them are relatively clean. You don't get the iron pirates which when exposed to air contributes this acidity situation. There are situations where that does occur, but it's a very small acreage of the total coal resource. The primary impacts on water are not so much the pollution of that water, but the consumption of the water. I don't think many people realize that when you build a coal fire generating station something of the magnitude of the proposed proparoites plant that you're going to be consuming 60 to 70 thousand acre feet of water. Now in the eastern pictures you saw the lakes associated with power plants. That's not a common occurrence in the west. They use a different cooling process; they use evaporative cooling in most areas where it's very consumptive of water. And, of course, I think all of you are aware that water is the limiting factor in the west; for everything including social development, the economic programs, mining, and wildlife habitat. The whole ballgame is tied to water. It doesn't take long to identify that limiting factor. That is the limiting factor for coal development. In many areas perhaps coal will not be able to be developed and consumed on site because of the water. And the transmission situations do not exist; they're talking about slurry lines which would mean crushing the coal into dust and transmitting it out of the west perhaps to Arkansas or the southeast; exporting water which may be more precious than coal.

As I indicated these are pretty much virgin areas, many of them where these massive coal deposits occur. The social-economic aspects may be the greatest impact in terms of wildlife. What in effect would happen, and it's already happened in some areas of a large number of people associated with the mining, power plants and all of the transportation nets and things that are essential, the storekeepers, the school teachers and all, move in. And in these wilderness areas, fairly arid, most of them are, well, by Nebraska standard very arid, are subjected to the impacts of new communities new people. This is really the lasting impact when an acre of coal resources is leased in the west. And, I'm talking primarily about the federal resources becuase the fed's own most of those coal resources, also most of the surface. That is about a 40 or 50 year commitment of those federal resources. Perhaps the disturbance of the surface is the minor impact and the least long-term impact. The communities are the ones that we'll have to deal with in the future. We are generating new hunters, fishermen in remote areas and areas that are fairly sensitive to human disturbance. So this is really what we're talking about in the west. In the eastern situation, you have basically private surface,

private resource, private energy resource. In the west the contrast occurs.

This difference is significant because most of the western lands are not under lease, so we as the Fish and Wildlife Service, Department of the Interior, State Fish and Game Agencies, can influence where these leases are issued and there are a lot of alternatives because there's a lot of energy resources out there. The primary leasing agency is the Department of Interior, so certainly the Fish and Wildlife Service can have some influence on that leasing program. There's other ways too; not only affecting where the leases are left, but what stipulations occur. If we want rough terrain we can have it required in the mining plan. Region 6 is already doing this. Region 6 is working with the U.S. Geological survey which is the enforcing agency in terms of reviewing mine plans. So there are opportunities.

We have one of our team members, Dr. Roy Urwin, who is working right now in Washington developing the implementing performance standards for this surface mine reclamation act, and I guess he's been criticized for trying to make it a Fish and Wildlife Service bill. In effect, he has used the resources of the Service to a fairly great extent, plant ecologists, wildlife biologists and others, to make sure that wildlife is mentioned by name, not just as an environmental consideration, but specifically mentioned in the regulations which are really the guts of the thing. This is the details by which the Act is implemented.

Now I want to go through with you just a little bit of some of the programs that we have under way that I think are going to be useful to the states and certainly to the Fish and Wildlife Service in terms of getting in front of some of the problems. Like I say, most of the western lands are not leased. That action is left yet to occur and one of our objectives is certainly to play a role in that and we have in some other mineral areas and the reception has been fairly good. I think we have the strategy for affecting which lands are leased and the sequence with which they are leased.

Our western energy and land use team is part of the Uplands Ecosystem Program of the Office of Biological Services. It's a fairly new organization. Our team is not, well in August I guess it will be two years that we've been in existence. The make-up of the team focuses around the areas of activity that we're working with and they are primarily energy related. Coal, which is our largest program, oil shale, geothermal and this is a very important western water application program. We have research managers in each of these areas; we've added a fifth who is dealing with synfuel programs; that's liquefied coal, gasification of coal and some of these other programs which may in the long term be the really significant approaches to solve some of our liquid and gas fuel shortages. To support this team of managers, we have multi-disciplinary group of scientists, the best group that I've ever had the opportunity of working with, with a variety of perspectives. We have political scientists, physical scientists, economists, remote sensing specialists, the whole gammut of skills to work with. Of course, we have an administrative support group.

Very early in the game, we took a look at the energy program, the kinds of impacts we would likely expect. We found that two areas stood out.

One of them is the need for some sort of common method of assessing habitat so that when impact statements, environmental assessments were made that one organization could speak to another with some intelligence. So we put together a habitat assessment group; they're working closely with the forest service, BLM and states in devising a national habitat classification system. It would be a high archial system where you could aggregate upwards from information if it's accepted in that context and it should be a great utility in transferring information. They're working closely with the forest service who has the responsibility and the resource planning act of making inventories on a ten-year sequence, the first one is due I guess in 1978 and it will be on a ten-year basis. This group is helping to develop the methods used in the inventory for the wildlife part of that assessment.

The other group is a unique group in service, the Instream Flow Group. By the way the habitat group is headed by Doctor Harry Columb; Doctor Clair Stahlnecker is the leader of the Instream Flow Group. The unique thing, or one of the unique things, about the Instream Flow Group is that it's a Fish and Wildlife Service funded program through EPA pass through money, but there are only two Fish and Wildlife Service employees, the leader an aquatic ecologist, Keith Bayhop. The rest of the people are from state organizations and other federal agencies. We have people from the Bureau of Reclamation or a person from there, an engineer; we have a member of the Bureau of Outdoor Recreation attached to this group. The rest of the team is made up of state people. Doctor Millhouse in the Department of Ecology, state of Washington, a hydrologist who helps set minimum stream flow requirements for the state of Washington; Ken Bovey from the University of Montana; Tim Kokenour from Idaho Fish and Game; and, there are others that have played roles in coming in for short times and working on specific problems. They are in the final stages of developing what I think will probably be a major breakthrough in assessing incremental changes in stream flow. That may be one of the major problems of energy development in the west--the diversion of water from the natural water courses. We can see the problems we have now in the west with shortages of water. You even have them in the east and any additional diversion of water will create a nightmare to the Fish and Wildlife resources so their method we think will permit one to predict what those impacts may be.

We differ from the very capable research arm of the Fish and Wildlife Service in several respects. The Fish and Wildlife Service research arm is primarily oriented to longer term, more detailed biological studies must be related to some decision or process; they must be related to a problem that we're trying to solve. They are oriented toward a user. We have this in mind before we ever fund or start a particular study and most of them are on problems where we can apply the results over a fairly large range of areas. We're looking for short-term payoffs and of course this enters into disciplinary approach which reflects pretty much the make-up of the team. Another important factor is that we're more interested or working more with the habitat, the ecosystem, than we are with the animals and timeliness. We work closely with the regions and states; many of our projects are funded to state organizations. The regions have regional activity leaders which interface with most of our activities; they have activity leaders that are working in the same energy areas, water programs that we're into. We have a very limited support and service function

because most of our commitments are to the studies that we developed.

We focused our studies on five ecological test areas: eastern North Dakota, the Powder River country here in northern Wyoming and southern Montana, the oil shale tracks in northwest Colorado and also the coal areas, the Caperoitz plateau Henry Mountain area in southern Utah and this area here encompasses probably fewer residents than live in this room and yet it's probably a third the size of Nebraska and the four corners area. We picked these areas with the assistance from the region for several things. We wanted areas that had high value resources: coal and shale. We wanted a variety of resources where we could test for various contaminants and we wanted them to fall upon areas where what we find out would have broad reflectibility and most of these ecosystems occur over very large areas. There is active minig; we want it to be in areas where development would likely occur so that we could test against these processes. The minerals are somewhat different.

This is lignite type coal lower quality, this is sub-bituminous and bituminous coal, shale, bituminous and sub-bituminous and the same on these areas; no shale here but coal. The area that we're interested in falls in several processes over several areas. The decision processes involve the leasing, management of these resources and the informational needs. When we say informational needs, we're talking about the whole array of decision makers. They need different kinds of information presented in different forms and that's one of the basic considerations of what we're doing. Of course, we're into information methodologies, how to store information, because there's tremendous volumes of information generated by everybody and their brother out on these coal areas. I've already mentioned their habitat program.

A major part of our program is rapid impact assessment methodologies. This is primarily funded by EPA. We have about three million dollars in this effort and what we're trying to do is develop methods that are much manpower costly and dollar costly too if we can achieve that. Using some of the latest technologies, remote sensing, using landside imagery, color infra-red, and so forth in trying to measure and interpret from these methods plus a lot of on-the-ground methods, better baseline studies, things of that type. We're into baseline studies as I mentioned. Water quality and quantity requirements for fish and wildlife are a fairly significant part of our program and valuation for wildlife. How can we best measure willdife values and play them against some of the other values considering longterm values, the economic values, dollar values and whatever?

And the last part of it and perhaps the least significant, the restoration and reclamation part of it. It seems like in most programs this is where all the focus is. But really the real guts of most of these operations are affecting the decision up here. Maybe this won't even be necessary if you apply your pressures to the decision process. You can influence the mining of the lesser valuable lands in contrast to starting with the best, surface I'm talking about. Well basically this is perhaps over-simplified, but we get into the decision processes and identify very clearly where previously most fish and willdife people were invited into the process ten years after the plans were laid and you were asked to respond and it still

occurs. We're not satisfied with that. We want to have full knowledge of the decision processes, we want to influence them and we want to help develop them if possible if they're not adequate. And the information should be geared at that level. That's where the action is; determining what information is available or pulling this together in a fashion where it will be useful to all the people involved, state federal and others and this helps us set priorities for picking up additional information where it's needed. The analysis integration part that's frequently the part on an environmental assessment that's the most lacking. Frequently I spend a lot of time collecting information; it is not effectively analyzed and passed on to the people who can have the influence on the process.

Like I say one of our major activities is to try to get into the front of these projects. I mentioned that we're typically invited in sort of as an after thought or that has been the traditional method. Projects are laid, developed and then Fish and Wildlife Service or state is asked to comment on some program of some other agency. Our approach is to find out what all these processes are and decide for ourselves where we should be involved and I think that's being effective already. On this rapid impact assessment program we're working on, I think I'll give you a little more detail of some of the kinds of projects that we're working on. The other parts of the program are devised around the various actions that occur in a federal leasing program, the energy development program. These are pre-leasing, these are all of the impacts assessments, the inventories, the actions that occur in government, the leasing phase, then the development and then finally the reclamation and mitigation if there is any.

In the pre-leasing phase, we had several studies on decision processes, trying to identify really where is the important input point within the decision process within the state and federal government, what kinds of studies should be done before the fact to determine whether or not an area should be leased, taking a look at what is the existing situation so that you have something to compare future actions against. We have programs in habitat classification as I mentioned and regional analysis.

One of the things I think that we're very much interested in and want to pursue, but we haven't done too much lately, but many of the actions are fairly specific for a fairly small area. You issue a lease for a thousand acres that impacts a certain area, but the real impacts on fish and wildlife probably occur on a regional basis where you have a multiple number of leases being let. They impact the water resources of that area, they impact the social-economic situations where people are dispersed around an area, they live there, they have their four-wheel drives, they go up and have impacts on wildlife so that is a very important part. Our approach in this regional issue is to take a look at habitat and we work closely with the regions and the states in developing a method of setting some kind of criteria in classifying the surface in terms of what is out there now, what are the relative values of the fish and wildlife habitat on these lands that are underlain by coal and this project is pretty well complete now. It is a fairly quick and dirty action in effect, but it is an assessment made by biologists rather than other kinds of managers, so it does give the decision maker an option of looking at what are the surface values and comparing them with the total coal resources. I think this may affect where leases are let.

We have many projects under way that are geared toward measuring the impacts of the development. We have a simulation model, land use planning model, computerized system on oil shale which has been developed by Doctor Gross and it's a very effective tool and incorporates all of this huge amount of information that's been generated by the people out there inventorying on the oil shale tracts. Primarily they're contractors of industry gathering information. We can put in our information system, we can simulate existing situations, we have a model of the physical activities that occur out there, the air pollution, the water consumption, the waste disposal, the mining activity itself, the constructions of roads and power lines, etc. We can overlay various wildlife values over this situation and it permits one to very rapidly respond to some proposal.

You can assess what the potentials may be almost instantaneously. We have projects characterizing some of the habitat in terms of the elements of the habitat, what wildlife populations occur there, what are the critical parts of the habitat over much of the coal resource areas. We have several projects relating to stipulation preparation; these will go out to the states to assist them in developing stipulations to require certain plans, certain components of a plan, to leave the land in rough form, to enhance wildlife habitats, plant certain kinds of wildlife species, to incorporate it into the general area requirements. Many of these western lands incorporate habitat for large game, so perhaps the best mining reclamation strategy would be to determine what the limiting factors are for that herd and try to end up with a reclamation plan to provide that habitat. Our rapid impact assessment program involves the development of composite mapping system where we can protray this information on computers and assist the area offices in terms of evaluating a mass of information, pulling out just what they want and not having to deal with huge files that most of us are used to. We going to develop a simulation model on the coal areas similar to the one we've developed on the oil shale areas.

We have a plant information system at Colorado State University which permits anyone, state or federal, who is interested in writing a reclamation plan or preparing stipulations for a mining activity to call upon this system. It's based on the herberium of several state universities and they can simply ask the system for what kinds of native plants with certain wildlife values would grow on a site with a certain altitude requirement, a certain aspect, slope, things of those kind of characters and a readout would be given that individual with all of the native type plants that would grow there. We're adding some of the non-native species and we're expanding the number of states involved. Right now it covers Colorado and Wyoming; I think we'll go into Montana and perhaps other states with this program. It's been very useful. Many of the mining companies are making great use of this plant information system. I mentioned the baseline studies because everyone on the team was asked to evaluate the very expensive baseline studies which were being carried out on the oil shale tracts. You're probably familiar with the oil shale tracts; they were sort of established to develop the state of the art of reporting and reclaiming the oils that occur in the shale lands. Since they were prototype, huge amounts of money were spent in gathering basic information. In the rush to write the leases, it seemed like the managers required the world be studied on these sites. And in looking at the results of these studies after the fact that some of these areas they spent five million dollars gathering information, we found that really you couldn't measure a damn

thing by looking at the baseline data because it's junk, it is not connected, it's not integrated into the total package of what you would require. So we have a fairly major program of trying to develop guidance primarily for land managers, not necessarily biologists, in terms of what should be incorporated in stipulations if you require industry to gather information so that you can monitor the impact of their program. I think this project will probably save millions of dollars and untold numbers of hours for biologists who are contracted to go out and gather this information, but the bottom line, of course, is when you get through you can measure the impacts.

A couple of other projects that are of interest--we do have some pojects that are with coal companies. One of them is the Decker Mine Peter Kiewit in Montana. I think that's specifically light and power. It's a sort of a three way partnership, Montana State University Fishery Unit, the Willet (?) Team and what we're trying to do in a fairly arid area. The State Fish and Game Agency wants to produce pike spawning areas on an experimental basis. In discussions with Decker Mine they agreed to share about half of the cost of this project which is to construct a marsh of waterfowl breeding area and then a pike spawning site. The unit leader has been up working in the area; the water quality is such that it will probably do the job, at least we think it will, and at the end of the project the area will be turned over to the state of Montana to manage as a marsh or as a spawning site, however they wish to manage it. This is going into it's second year now and we've had excellent cooperation all the way around.

We've got another study on Amex Coal Lands, primarily in Wyoming around Gillette, which is geared to try to really evaluate what are the impacts of mining, the human impacts of disturbance, etc. upon antelope. Here again, I think that we have a very excellent working relationship with the mining industry and they are interested in resolving some of these problems. Our goal is to end up with a reclamation plan which will, if not at least equal the habitat that was there before, perhaps improve it if we can reclaim it with both features which are limiting in the antelope population at the present time. Some of the pecularities of the western scene I think perhaps mining may produce more surface water than it impairs in terms of diverting or consuming in some areas.

I think the Wyoming-Montana area is an interesting example where some of the coal scenes are the underground aquafirst for water and being almost pure carbon the water is fairly good quality. There are opportunities for using this water for fish and wildlife values. Most of it is not tied up for agricultural development or other kinds of development. I think the differences are great in terms of what has happened in the east, and what the opportunities are in the west. The federal ownership is the primary difference. The leasing agency being the Department of Interior, the service being part of that action, the fact that the changes in the new administration and the intensity with which they are pursuing environmental objectives, I think, is reflected in the reclamation regulations which are being developed in the Fish and Wildlife Service, a major contributor to writing those regulations. So the reclamation law as it's enforced and applied will actually reflect a great deal of Fish and Wildlife Service input if it all stays in.

One other item I've mentioned in passing is the large number of projects. We have about fifty projects that relate to various water and energy developments. I couldn't even begin to just perhaps hit the highlights of a few of them today. Even though our focus is on the west, I think what we're doing has great implications in terms of transferring to other areas. Really the landscape is not that different. Many of the technologies that we're working with could be used in any of the mid-western or eastern areas. I brought several copies of a project summary list we produce periodically. This is a June edition and it's got fifty or more projects listed. They're according to categories with an index and it refers you to a very simple title, composite mapping and analysis system that refers to a page. When you get to the page, it describes the contractor, the title and perhaps the most important part is our project office on the team who can be contacted for more information about the project. A more descriptive statement of what the project is all about, when it was started, when it's going to be completed and then the very important part what are the products and many of these things are coming to the end of the tube now so we'll be having a large number of project products, some forty-five in the next two or three months. Some of them will be printed products, some of them will be data basis, some of them will be visual aids type presentations, things of that type. So I think I have enough here for anyone that cares to pick up a copy. I have a few copies of the Instream Flow Group and it is more national in its character than the rest of the team. It describes the mission and if any of the states are interested in participating in a very direct way, either sending people there as IPA (Inter-Government Personnel Act) provisions where the service could pay for the services of the individual on a one-two or shorter term period. I have a few of these and I have brochures of the team describing in more detail some of the things that we're doing. If there are not enough copies, contact me and I'll be happy to send you a supply of any of these.

SCOTT BRUNDIDGE
Environmental Coordinator
Peabody Coal Company
Columbia, Missouri

I hope that some of the facts that I'm about ready to give you in just the next few minutes are going to be a little more pertinent than that fig tree information; in case somebody pours down on you concerning shade.

The potential for fish and wildlife benefits from future coal surface mining are outstanding. However, the chances of reaping these outstanding benefits may be small. Remember these words; outstanding, potential and small chance. Why the difference? Take the new federal Strip Mine Bill, it is written to give the lowest possible incentive to reclaiming coal mine lands for fish and wildlife benefits. This is the same trend that most state reclamation laws have gone to in recent years. Only a very small percentage of coal mine lands today are being reclaimed for fish and wildlife purposes. Thus, the potential fish and wildlife benefits from proper coal mine land reclamation are generally being ignored. Can the trend be changed? I would say it better be, but being polite, I would say I would hope so and real soon. Those persons most responsible for bringing about a change in reclamation in favor of fish and wildlife are you, the directors, commissioners, and the division heads.

Let me show you a series of slides depicting the problem and I'll offer you some suggestions on how to gain hundreds of thousands of acres of mine land for fish and wildlife benefits.

Slides

Let me give you just a brief background on coal mining for those of you who aren't familiar with it. In order to give you an idea of what is actually taking place and how the fish and wildlife habitat benefits can or cannot be incorporated in the plan. Most areas in the past we have had the shovel type operation. The shoveler actually sits right down on the coal and he will swing and remove his overburden. You can see the coal start piling on the left; a little coal loader in behind the shovel; the shovel itself never touches the coal other than to ride on it. Here on the right you have a vertical drill and you can see them drilling the material or parting between the coal seams. In this case, once the coal is removed, they will blast or fracture the material, turn around and come back and take the next seam.

More and more today we are going to draglines, a more versatile piece of equipment. Actually, you can handle your overburden in a more orderly manner, plus you can go a lot deeper. In this case you have another new innovation on mining. As this rubber tire loader -- you can see these two haul trucks down there generally were going to 100 ton capacity. The dragline, as you can see the difference, sets up on a bench above the coal, drags these buckets in towards himself--that's where he gets his name--and would usually take the coal on out by these haul trucks. By the way this is all mine land.

Many of these pictures are in Missouri but a lot of what we are talking about really doesn't make any difference which state. Basically a lot of these things are going to be the same.

Coal is taken to a preparation plant, quite often, or it is crushed and washed, screened and sized, sent out on unit trains. Once in a while, in particularly Peabody's case, which is the largest mining company in the United States, we will have a mine where you end up with a power plant right next to the mine - will haul directly from the pit and quite often burn that coal raw.

Now let me throw in just a few facts or a few pieces of information. In this particular case, a 1,500-acre reservoir cooling waters for Kansas City Power Light and managed by the Missouri Department of Conservation for a 50 year period. I don't know how many years have gone down the road; probably close to 15 or 16 but fringe benefits are here. We have another one in Northern Missouri, a 4,500 acre reservoir; Thomas Hill Reservoir is the name of it. Again, the management by the Department of Conservation--how many other departments and how many states are managing these for fish, wildlife and recreation type purposes? I'm not sure but the opportunities are there. I do know in Missouri they are taking advantage of it.

Before we really get into the actual end of the mining reclamation wildlife management, let me throw at you two or three facts that I hope you will find of interest while we are still talking mining. Because there is going to be a lot of you wanting to know how much is mined. What is the future? What is going to be down the road just a little. What is going to be happening to yesterdays' areas and of our mine tomorrow? Coal produces more electricity than all other energy forms combined - that is oil, gas, nuclear and water power. America has underground over half of the coal reserves to provide our energy requirements for 33 plus years, as you've learned last winter where it has started to soak in to more and more people with the hard winter oil and gas reserves in the U.S. that approved less than a ten year supply. In the U.S. we have four times more energy in coal than all the areas of oil put together. So you don't have to be smart to figure out we are going to be around for a long time; we are going to be a lot bigger, we are going to mine a lot more coal. And that means that we are going to be affecting a lot more habitat that you are particularly interested in.

Now, what is the new federal bill, what do the present state laws really mean for it? Generally, my background is a forester, out of Purdue in the late fifties. Then I got a masters in wildlife and I usually think of a forester being just a hair off somebody's list from the bottom than the wildlifer. You guys even have a rougher time than we do. Now just think what laws are going to do to you and if you have not thought about it, think about it here in the next few minutes.

Most states strip by laws today and President Carter is on the verge of signing a federal bill which all state laws are going to have to get in compliance with. They are going to call for a grading down to the

original contour or at least to a grade that is going to be compatible with its intended use. Now, when you are thinking about that, almost sooner or later will get into this traversible by farm machinery-anything that is steeper than that is a no-no. That is just going to be almost a flat statement.

Here we are going into this type of grain operation. Here is another one with our power plant in the background slicked down. Where is your wildlife food and cover, and the habitat that was there before--and it is going to be there after we reclaim it. Keep some of these ideas on grading in mind as we go through here because we are going to be talking about two segments of the law--that which effects tomorrow and the monies that are available to reclaim orphan banks from yesterday.

We took this picture about two weeks ago. We have a cooperative program that started out in about 1964 that I worked out with the Department of Conservation where they will bring their hatchery trucks right on out to the mine property and we have an ongoing fish stocking program which we will talk about a little later.

By this shot, this again to show what you are up against-what I am against-if you want to talk about wildlife cover and recreation areas. It is unfortunate that if you can't drive there it's no good. So they slick her down and then they start talking about land uses. So this is what its looking like today in many many areas and tomorrow its going to look like that almost everywhere.

After we get through on our past type reclamation practices we will generally do a lot of polyseeding-going to a small grain cover crop, erosion control, aesthetics. Next year we are going to harvest. Try to get a little money back or in some cases just strictly hold those steep slopes down. A little water and millet has been there for several years or about a year and cattails come in and we came back in and did some seeding. Underneath, generally fescue and alfalfa. In the spring we come back in overseed it with our annuals, biennuals, some perennuals but at least the ones that have to be done in the spring of Korean lespedeza and sweet clover for example. And that way we can seed enough of a stand as far as the legumes-because we are going to grass and legumes. That is going to make us the best pasture and while I'm talking reclaiming mine land this is strictly probably a calculated guess, but I know Misouri, Oklahoma, good deal of Illinois, are going roughly 90% back to farm or pasture type operation. Some of the other states are approaching the 90%. The reason we are not going to a hundred is because we have a few roads and few water impoundments that take out about 10%, but generally speaking this is how we are going. Now after we harvest this fall-fantastic for the doves-but then we start getting into areas that you can see in this case the legumes and the best view coming along underneath which I keep our operations just as close behind a shovel as we can, then we will come back in and combine it-of course, we will get some pretty good dove shooting this year. But once we have got rid of that small grain crop and give it two years for the grasses and legumes to come up here would be a pretty typical picture of what you are going to see.

To my knowledge in all the states we are operating in and in generally laws are going to bring pasture land. Now probably some guys here from Illinois, they say well shoot, we are going to go a lot for row crops. Alright fish and wildlife is probably going to be hurting just a little bit more and there should be a lot of areas growing their own crops. I don't mean to knock it and I don't mean to knock pasture. All I'm trying to do is get across the point that right now we are talking just a fraction of 1% in some states to a very low percentage in other states that is not going for this intended use or row crops. In other words, fish and wildlife and forestry are taking a beating. Right after we get our pasture up to the point where it can stand some grazing we have either leased it out or if it is a leasee with whom we have had no land problem, he will get his own livestock back in. What I'd like to do is get into an area-this is just south of our prairie hill in NOrthern Missouri and a few cases where we get into some exotics and this about 6 miles from the mine--and I hope we get some areas reclaimed which will fit into this man's picture and we are working with him in some of these things now.

Other areas that we are coming to we have almo t a pure stand of alfalfa. In this case, here is our alfalfa--fescue. We are going back into a haying operation rather than fencing.

We are too close to the active mines so again farmland, farmland, farmland.

You sound like you are negative when you are knocking it like that and God only knows we have got to have some of that land. But here is the thing, if we are starting to mine an area and maybe its got 25% rough land. When I say rough land it could be in timber, it could be a little back forty, it could be some draws - something that is good for wildlife food and cover. Lets say you start out with 25%. When we mine it we reclaim it and you get less than 1%. That is whats happening right now. Maybe there is some way with your initiative to at least get your fair share. What is that fair share? I don't know, it is something that has to be worked out on a state by state basis. Maybe when you go before a local land reclamation commission, farmer dominated and oriented, or do-gooders which have their heart in the right place, but when you start talking about leaving something for fish and wildlife are you leaving a little rougher grade condition. You know that is not. We will slick it down, get where we can drive all over it and then if you want to plant a few food and cover species, great! But as soon as you get ready to lease that land you can't afford to fence that wildlife area off. So you've lost--but somewhere in there a guy has got to come up with a system and we will talk about this a little bit later. What can be done to get more for your benefits.

Water impoundments-we used to average 12 to 15% in Missouri for example, and I know in parts of Illinois and Indiana were just as high. With the type of stripping we have in Kentucky and Ohio, that percentage figure would be a down a little bit. You have all heard about acid water, acid mine drainage-we have some in Missouri, I'll make a flat statement right here so we won't keep coming back to it too often. Anytime you got acid mine drainage in a mine we screwed up. It should never happen. The laws

now say it will not happen. You're either not going to have it happen or you going to treat it. Anyway, there is never going to be another discharge, otherwise we are paying $10,000 per day per violation and they got a list of them. So it is going to be a lot cheaper to do it right. We have had the fish stocking program, the water management program because really this is -- oh I'm thinking back now in the 13, 14 years I worked for Peabody, I'd say in the last 11 to 12 very, very few water impoundments have been acid. Still that is too many; but we have got it where we are getting water quality of this nature. Most of it is water that will infiltrate in through this, fall into the impoundments. So you get a 6 inch rain for example or 3 inches in two hours and you dont' have the turbid, murky, muddy water that you get from so many farm grounds that you see at many of the rivers. So we have a super high quality water with bass, bluegill being sight feeders. For example we are getting super growth in these areas. We try to get them started right with the stocking of bass, bluegill, channel catfish. Here are some of the grass legume pasture water impoundments. This area here is before the law. I want you to remember a couple of these when I say prelaw and after law. We didn't start a law in Missouri until 1972. Some of you, some of the others, one man here I met, George from Indiana, they started the law in 41. So I mean you have all the degrees of what you may call previously mined and nonreclaimed for an orphan bank. WE will refer to some of these pictures later on.

This is an orphan bank. This was reclaimed to that condition with no law. Here is more of them but you talk about areas that you can go to for fishing and recreation, it is just beautiful. Grass, legumes and the water. This happens to be on the Peabody wildlife area-an area that we have given to the Department of Conservation. Mike Milonski and I were talking about it last night. Mike was involved as being, I guess, one of the recipients at the time when this property was deeded over--it is in southwest Missouri and that was done in the late 50's or early 60's.

Now here is a problem we are going to get into. High walls when you are fishing and go along those rocky bluffs where some of the boulders have come off and you have got some slopes-super areas to pick up a good bass. New strip mine law-high walls will be eliminated. All right now, where are you going to put it? There is only one place where you can put it, you've got to shoot it down and back slope it into the pit. If you put it into the pit you can't put water there. Talking to the head man working in reclamation for our company which is by far the biggest in the United States on strip mining for coal and I was talking to him yesterday, it is simple. Under the federal strip mine bill there is no incentive for water. It is allowed if you get permission and if it is authorized. Let me just read you some wording that I don't know whether to laugh about or cry. Here we are talking water impoundment summary; create if necessary, my God. You go into buy the land or lease the land--if you can't get a water impoundment on them you don't get the land. So no it is getting rougher and rougher to go through the regulations on dam construction. Permit an area before-hand and say this is exactly where we are going to mine. This is what a water impoundment is going to go to. This is exactly how we are going to back slope that high wall and so you are going to end up with a more shallow less desirable type water impoundment.

A guy can stand up and say well have it in the bill but it gets to the stage where it is just about more trouble than its worth. Man you talk about a loss. Thats not one single dime to you guys; mining is mining. Over 100 plus thousand acre a year leaving water impoundments for every type of recreational water use--not cost. Now there is a hell of a benefit that has just been lost when Carter signs the bill. Nobody seems to care, but I do and that is why I'm here talking to you because I think you guys can do more than any single group in the country to get something like this changed. Now let me throw one little comment while we are thinking along these lines because somebody's bound to think-God, geez there is something in it for him. Peabody has to have a benefit. I'll tell you right now when we mine an area and we reclaim it we pass every penny along. We've got cost accountants. Unfortunately, they are not as good as they should be and we end up with a little coming out of our pockets; but if we do it right we don't pay for it. So if we don't pay for it why should we care? I'll tell you why. Some of us care because it is wrong. We can do anything we want in reclaiming what we are all paying for everytime we pay our electric bill and we are passing the cost along. It is not coming out of our pockets; but it makes the most God-awful paper work. The slowest most difficult project to reclaim this land and we do things like eliminate water or minimize water, I don't agree with. This gets back to that fish stocking program with the Department of Conservation. We have this in several states. In a few other states I hope we get into it more and more because it generally has gone to what I call an indiscriminate stocking where somebody puts in a few bass, few bluegill and hope for the best. So this way we have been working with them for all these years and I think it has paid off in the long run.

Two years after we stocked the areas to be open for fishing, the bass have already spawned and we get into what I consider some pretty good fishing. This is years ago with my oldest boy.

Now there is a guy you might recognize. You talk about Malonski and an unkind comment a bit ago. Now nobody could hardly miss Olsen Tebbs smiling face when Olsen had been fishing in some of our water impoundments. At that time the state forester and what is he now, an assistant director now, Mike? That is a string of fish Merv caught and Olsen held them. Speaking of Merv, if you want to know which one Merv is, who isn't padded? That is his son in the rear. I don't know Merv that is several years ago when we had what we call the "proving grounders". The reason I want to show this is the recreation opportunities, but in the background an orphan bank which we are going to talk about in a little more detail because this is the type of land that they are going to kill you on starting within about a year.

Here is a picture of Hal Weeden, or Dr. Weeden who is an extension specialist in forages at the University. He has done a lot of work with me on vegetation. Different species we put out, some test plots. He grew up in mine land in southern Indiana. He is real interested in it. We have been good friends and worked on this for years. Now I'd like to say that is a typical day of strip fill. But what that is out there is a piece of property which you will see later on. I have known, and I've

been doing some experimentation on channel catfish and cages. The cage cultures are the slickest thing in the world, gang, I'll tell you that right now. That is only about a third to 40% of the channels we raised in a 4 by 4 by 4 cage last year in the strip pit out there on our property. That is not even near half of them and you can see the load in the background. Put in as fingerlings 4-5 inches. We did not feed them every day but you talk about a super way to restock an area and to give you some of the best fishing. They did real well. Actually, we feed them everyday and start a little earlier in the spring we would be talking an average 16-18 inches. These here were around 13 inches.

Now, orphan banks. Lets talk about wildlife again. Orphan banks you have heard about. You have read about it. This is the no-no of the mining industry where you have screwed up. This is an area that was mined and reclaimed before you had the guidance and blessings of the law to tell you what you do that is right. So if there wasn't a law in the state, the lands automatically forfeit bank land. Now the Federal Strip Mine bill, for each ton of coal that is mined from a surface mine they are going to charge us 35¢ a ton. For each underground ton, 15¢ a ton. Okay this gives us a package starting out as soon as the bill becomes effective, give or take a few million, roughly 175 to 180 million dollars a year to come back and reclaim this. Because that was mined before the law, it is orphan bank classification. Now I've talked a lot to federal people, not to many I agree with, but here is what they state. "Its not graded its not reclaimed." Now you just keep that in mind when you look at some of the best fish and wildlife cover you will ever see in your life. Some of which is owned by various departments and you think that the private landowner owns it and he can now get his hands on federal money through whatever kind of matching funds or free gifts or whatever the hell they figure out--yet money is going to be available; and if coal industry is supposed todouble by 1985 like Carter wants, we are talking what-close to 300 million. Now you simply figure it out. There is going to be so dam much money you don't know where to spend it. So the highway departments, everybody and their dog is starting to look at that free money that could be available as a severence tax mining the coal. There is only so many acres out there that can be reclaimed.

Now real quick, let me clarify, there is a lot of pre-law acres that need reclamation. There are piles that are bleeding 24 hours a day acid water. There are old impoundments with miserable soil areas that don't have any vegetative cover or very little. The silt load, the acid load is tremendous but there is an awful lot that is just like that. That is where we have our plant material center.

Try fish management experimentations, you name it, its out there somewhere. But it also falls in the orphan bank category. My neighbor is waiting for the federal funds to become available so he can slick her down, seed it back to fescue and he is already got a fence around it. He is going to put his cattle in.

We planted the trees and wildlife cover about 67 years ago, but that is nothing to a D8 or D9. They slick it down and he will get paid for it as

pasture unless something is done about it.

Hayler Wildlife area owned and managed by the Missouri Department of Conservation, probably close to 30 years old when it was mined by the old coal company, maybe 35 years. Lots of years. Roughly an hour from Kansas City. Anytime you can go out day or night, I'm sure there is a lot of recreation going on. It is close to our mining areas and I happen to know it does get quite a bit of pressure. Beautiful area, absolutely no grading whatsoever there. That is just in a rough condition but its got cover-mother nature did most of it.

Alright, back on the same area gain I want to take you to a sequence of these areas with recreation, fish and wildlife in mind. Minimal amount of grading, a rougher habitat, super escape cover, good nesting area, you'll see the different species and grasses and legumes and wildlife plantings and wildlife cover and trees that are interspersed to give us a little diversity. You can see that this is about a 7 year old planting all which I'm in love with. Sycamore, black walnut, cottonwood, pin oaks, sweet gum, river birch where we found it-does real well in these areas. Here is some of our original plantings that we put in the late 50's. I show you this for two reasons; we go mainly the hard woods in Missouri as we do in southern Illinois, southern Indiana, parts of Ohio. You get the pines, particularly the short leaf pine, you get more insect problems, more disease problems. The hardwoods grow faster and here is where we start working with the planting of shrub lespedeza.

This area has lots of little pot holes trapped back within the mine area itself. Frog hunting, the coon tracks always around there, covies of birds working in through here. It makes a real nice area to get in and hunt. Here are some autumn olive; and there is a four year old olive with berry production. This varies year by year, but I know most of you, if not all, are familiar with it. Great, great plant for one time of the year. You talk about getting into the first of December though there is not a berry left. So right when you need it you are hurting but for nesting area and cover, great! Here is an area that we have Christmas trees we grow on out there in the mine area. Sericeous lespedeza, great cover if you want to keep game. You can see the autum olive and all in the background. We have got these little patches of cover so I don't have trees everywhere. Switch grass has done real good. It's a little slow to start, but you can get the heaviest hardest winter in the world and that stuff won't go down and you still have cover. Shrub lespedeza down below.

Whenever we are talking about grass-legumes we are trying to get as many legumes that are going to be great for pasture but also give wildlife some benefits. But you get a four hundred acre reclaimed area in grass-legume now many of that four hundred is going to be available for the quail and the rabbits. Not very much. Here again rough cover-boy the deer back here are something else.

Most beautiful dog in the world. It is one of Milonski's that Mert gave me a few years ago and she is a beauty.

Just to give you an idea of some of the grass-legume cover underneath-if the tree cover comes along of course you are going to be changing species. We all know that, but right now in the last few years the rabbits and quail have been real good. We are into this stage now, I'm picking up more and more deer in there now than I have ever before.

Now I want to show this area because you know if you want to see a grown man break down it is something like this when you think of the federal funds for reclaiming that because it is an orphan bank, it has got to be bad; and somebody who never got out of Washington wrote that in the law cause I guarantee you that is as good a recreation area that you will ever find. That is an area, in fact Merv you might not recognize it completely, but that is the area we deer hunted a couple of years back and every time we would go in it you would scare the mallards off those areas; real cose to Thomas Hill Reservoir. Always jump shooting the waterfowl in a lot of those places. Again, money will be available if the landowner wants it, if he wants to put up some matching funds or it may be 100 percent. Again, I have never seen the details on it but the money is going to be there. Get into some over stands--a raft of ducks along the strip pits. Here is an area with no grading whatsoever. Southern Indiana-gave this to the girl scout camp just outside of Evansville or it would really be close to Boonville, Indiana about 20 miles east to northeast of Evansville; but that is a real nice area to get away from it all and that water is great. But there is never even a penny spent on dozer work there. So that really needs attention according to the fed's. Alright we are getting into a 25-30 year old stands. Jump back to Indiana now because they have had some of the best tree planting, best reclamation for a longer period of time than any other state' and there is reclamation statistics to back that up. Now I'm going to lead right back to Missouri to show that we're getting land products off of that.

This is one of my earlier locust plantings and this is about 5 years ago that I took that picture. The reason I show it to you is that you can put a lot of this rough ground into a usable product. When you get into January, February and March and you want to catch quail feeding in the morning or evening go to your black locust. Leroy Korschgen did some studies down there with the Department of Conservation. I think Leroy is probably universally known at the most outstanding man on working with food studies for wildlife. We get in there and watch the quail when it was like last winter's snow. They get up in the branches-you get about 5 or 6 up here--forty or more down there-and they knock those pods off as quick as they can. It is an amazing site-the black locust can really be a wildlife asset and you never hear hardly anybody talk about it.

Here, we are getting an area 30 minutes from downtown St. Louis-all orphan banks. Almost 40 year-old white pine along with a few other trees. Again, I show you what some of these areas have been like for years and years but are still carried on the books in Washington.

Eighteen year old walnut, 35 year old walnut, 18 inches dbh.

Now a few quick shots on--now this is the old hunting area that I usually go to. Merv has been up there several times deer hunting. I spent last

years opening weekend on this with my boys. You know it is one of those hunts you will never forget if you live to be a thousand and everything went perfect but we would just go right square out in the middle where--remember that patch with that little lake on the slides that I showed you about 6 slides ago-that is the spot. Go back in there and I'll guarantee you won't see anymore game unless you go to a zoo. Now remember the movie this morning just before lunch and they finished up and showed that beautiful buck running along-the helicopter chasing and I'm sitting across the ridge thinking what in God's name is going on and he runs over the ridge and I'll guarantee you that's him. Now that is off our back end of our mine in Colorado--that was years ago when I could still afford to go to Colorado a lot. I don't know if I'll ever get there again but they are out there--they come and feed on these legumes. We had alfalfa which they claim won't grow in Colorado. We would mix that in with our grasses and those deer would flock in there at night like you wouldn't believe.

See the older plantings in the background? Lots of duck shooting in just about all the mines. I want to throw this in-under the law that is coming it's got to be rolled together. All the pot holes your talking-the water has to be permitted. This happens to be a college mound. I know several in the room are familiar with it here in Missouri. When I first came to work in the early 60's they really didn't know how to grade and had never done any of it before so you can see just a little bit of dozer work never even touched those. Maybe hit a few of these but it was left almost in a natural state and where its still a little problem on vegetation on a few of these. But you talk about waterfowl in the spring and fall, and that is gone now.

Giant Canadas-Montreal's lake area right there at our power line. We even got some of the spoil right in that one edge of the lake back there. The geese have come in down there through the cooperation of the Department of Conservation. There are lots of them as you will see--they nest out on our mineland. There's the power plant with Montreals lake in the background. All these little island and points around here you can come out in the spring and invariably you find and see a nest in those Canadas.

Here is a giant Canada goose study that they have when they first, I guess, discovered them over in Illinois. This is done up near Farmington on some Peabody land with the Illinois Dept. of Natural History. I believe on some work and research and they bring the giant Canada goose back with of course much better conditions today than it was at the time when they first started this, back I think it was in the 60's.

Lots of fringe benefits from wildlife on the mine areas. You can see from beaver to coyote and you name it on these areas. In some states they have gone more and more to second homes-first homes like this. All they did is put a road back in there to get to it and built their dock and you talk about a nice place to get away from it all-that is it. Here is a nice place that I get away from it all. Out there on the place that I have where we have studies on everything--on plant materials, tree shrubs, fish, you name it.

If I can have the lights here. What we will do is hit a few items real quick on what you all can do to help yourself on these several hundred thousand of acres of land that I'm talking about.

Number 1 - those orphan banks. When that money becomes available, according to some of the latest statistics. These are around 650 thousand acres of mineland that needs reclamation in just the states that are represented right here. About 2/3 of that needs attention. I'm getting these from federal figures. Alright, we are talking around 400 plus thousand acres, much of which you just looked at there. In other words, I think if you go back and check and take an inventory on how much land you have in your state and you find out if it falls in this category. Ninety or hundred percent vegetative cover, good water no off-site pollution, nothing. If you've got pollution or you've got less than that percent of vegetative cover, thus it's got to be eroding, it's got to be silt and there's got to be something wrong with it to reclaim that. But if it's got the cover on it, somehow, somway, don't lose it because when it is graded down it's gone. That I can say as almost a flat statement.

If you can grade it and plant a tree for wildlife species- 6 years later sell it you can come back the 7th year and tell me what you find. Cause we have seen an area up here.

Encourage water impoundments. Do all you can in working with your local reclamation people administrating the laws in your state. Go ahead and see what you can do about increasing water impoundments. Get into fish management recommendations. Federal bills have a page and a half on water impoundments. When it is all over with, it doesn't say it has to be stocked with fish. Somewhere in there we ought to have to stock it and ought to have to stock it right.

State laws don't specify that those pits have to be stocked either. Everything we do on fish stocking is cooperative agreement. Some way, come up with a design for grading that is going to enhance wildlife. If it is slicked down like the floor, you just about lost it all because somebody is going to come in there with a dozer and its gone.

You leave it a little rougher I think there's got to be a place for the rougher grading, some way, some design which is going to benefit you. We talked about the orphan banks and the only thing is, when you leave, talk to whoever is responsible for trying to save some of that that is already been mined and in perfect habitat or think about tomorrow too because otherwise wildlife is not getting the consideration unless somebody goes to bat for it--we are all hurting. THANK YOU

Mike Milonski
Assistant Director
Missouri Conservation Department

Thank you very much for inviting me to speak and we certainly appreciate the chance to talk to you about wildlife and forestry conservation in Missouri. It is a popular subject in the state in that the majority of the voters approved the 1/8 of 1% sales tax last November which dedicates quite a bit of money to the Department of Conservation. The tax is expected to bring in about 26 million dollars annually; our present conservation budget is about 18 million. So you see Missourians have pledged a great deal of money to conservation.

The story of Design for Conservation really began in a sense I guess in 1936 with the passage of the constitutional amendment creating the Department of Conservation. Prior to that time, Missouri had a political, non-professional Fish and Game Department. This constitutional amendment took the old Fish and Game Department out of politics by creating a non-partisan four man commission on a bi-partisan basis appointed by the governor on six-year staggered terms. This was so the governor could not appoint any more than two members during his tenure. We have two Republicans and two Democrats and incidentally today he is appointing two of them. So we're all kind of sitting on pins and needles here because we're losing half of our commission. The constitution invests the control of wildlife and forestry resources in our Conservation Commission, and they earmarked hunting and fishing license funds and other monies generated for conservation. It made possible the continuing professionally based program of conservation and brought wildlife back from the dismal lows in the 30's to the relative abundance today.

But what about the future? This concern on the part of the professional staff and Director Carl Noren in particular was brought to the attention of the commission which approved the study of present programs and future goals. In 1969 the Missouri Department of Conservation was evaluated by three nationally known conservationists. The study team said that the organization and programs were excellent and were a good base for future programs. However, the committee felt we should broaden our programs to include conservation of all wildlife, including non-game species. Another suggestion was to provide for outdoor recreation outside the traditional realm of hunting and fishing. To accomplish both would require a source of funds beyond hunting and fishing permit fees. With the idea that somewhere the funding was available, the department developed a proposal to provide more thorough and effective conservation programs. We call this program "Design for Conservation." "Design" is a basic program for Missouri's outdoor future. It is a long-range plan to expand Missouri's wildlife conservation program and provide more outdoor recreation opportunities.

There are three major parts in it: acquisition, the acquisition of all types of lands including strip mine lands, wetlands, prairie areas, caves, springs, hiking areas; the second part pertains to public services of many different types; and, the third, research, to go along with management. I have some copies of "Design for Conservation" which goes

into quite a bit of detail that you're welcome to have after this session is over, but it shows you where our goals lie for land acquisition, lake areas, public services and finally where we're going to concentrate on our research. those really are programs we're already engaged in, but the emphasis now was shifted from harvest to water use and enjoyment of the outdoors to the so called nonconsumptive type appreciation activities. To study ways to fund this program, the department hired a private consultant and the University of Missouri. At a public lands meeting called by the Commission to make public these study committee's report and the department's proposal, a citizen's group was formed. This group is called the Citizen's Group for Conservation. Working closely with the Conservation Federation in Missouri, the group launched an initiative petition drive in 1971. The petition called for an amendment to the state constitution.

They chose to obtain revenue by taxing carbonated soft drinks at the rate of 1¢ per 16 ounces, with the money earmarked for conservation use. Enough Missourians signed the petition to put the issue on the ballot in 1972, but the efforts failed because of a technicality. The lawyers who drafted it forgot to put an enacting clause on the ballot, so keep that in mind fellows. When we got into this thing the Supreme Court ruled it invalid for that reason, but we found out that the soft drinks people have a lot of money backed up. I think they had something like $2 million saved up to fight this proposal which they didn't have to use. But they are very powerful. I remember going to Kansas City and talking to Lenny Dawson to see if he would help us with this program and he agreed. Lenny Dawson is with the Kansas City Chiefs, I suppose you don't remember, and two weeks later he had a contract for Canada Dry. This is the way this damn thing went throughout this whole thing. We had a banker who backed us, gave us 5 grand and then he completely backed off in about a month. So they are powerful, you'll find that out. The effort languished until the Citizen's Committee came back in 1975 with a new initiative petition based on a more recent study of taxes, most upsetful to Missourians. It called for a constitutional amendment with funding to be acquired through an addition to the state sales tax, a 1/8 of 1% increase, and these funds, of course, would be earmarked for conservation. The signatures collected on this petition drive had to be those of registered voters due to a new state law. On the previous ones, we didn't have to have registered voters, but this one we did. It makes it much more difficult. The group collected almost 200,000 signature and the issue was certified to appear on the 1976 general election ballot. The CCC working entirely with donations informed Missourians and urged them to vote "yes" on Amendment One, the Conservation Amendment. The Department informed people about the conservation program, the Design for Conservation, which could be funded if the money was available. Last November 2, 1976, it was passed by 30,000 votes, which really isn't a big margin when you think that there were 900,000 for it and 900,000 against it. So we just kind of skidded by.

The total effort to pass this amendment has been several years and it involved the efforts of thousands of people. The backbone of the drive was the well established State Conservation Federation. The executive director devoted himself full time to the project for the last two years.

This gentleman's name was Ed Stegren, perhaps you know him, but he did a beautiful job. The CCC had a state wide organization with a coordinator of each Missouri county. The coordinator was responsible for a minimum number of signatures and he got them by rounding up volunteers and driving them to shopping centers, fairs, college campuses and other spots where large numbers of people gathered. Hunting and fishing clubs did real well in getting signatures, but the best petition carriers were often college students, I started to say dickey birds, but they're not, bird watchers, backpackers, garden club types, Sierra Club people. They really were outstanding. The Citizen's Committee required money throughout the entire effort from the petition drive to the actual campaigning and advertising. The group hoped to have about 300,000 dollars from that campaign, but ended up committing about $65,000 for roughout the entire effort from the petition drive to the actual campaigning and advertising. The group hoped to have about 300,000 dollars from that campaign, but ended up committing about $65,000 for advertising and raised an additional $45,000 for expenses. The committee initially hired a campaign organization to raise funds and conduct the media campaign. The private firm had difficulties raising money; however, their contract was terminated. This was after they spent about three valuable months trying to get money. So the Citizen's Group proceeded on their own to raise money and produce their own advertising. The group produced radio and television spots plus temporary ads for use in newspapers. A number of celebrities donated their services to the ad campaign, like Marlin Perkins of Wild Kingdom, Tom Shipley of the music group Brewer and Shipley, plus assorted football, baseball, golf celebrities and other personalities. Most of the donations came from sustaining members of the Conservation Federation in Missouri and mailings to about 250,000 additional people. Most of the donations that the citizens got through mail were small, but they added up. Some money came from corporations that either liked the idea or were in a business of selling outdoor realted equipment.

The statewide money raising effort included a sale of wildlife art prints. I don't know if any of you seen them. I brought one I'll show it to you in a minute. We found that the use of limit edition prints by artist, Charlie Schwartz, was an important stimulus in producing funds. Over $90,000 was attributed to his donated art work and the two fund raising efforts. This one is the one Charlie produced for the 1/8 of 1% sales tax. These were limited edition, they were numbered and then they sold for $25. if he remarked them, he drew a picture on them and remarked it, they sold for $100 and we sold a lot of those. The Citizen's Committee sold a lot of those too, but someone can have this if they'd like to have it after the end of the program.

Money was also raised locally by such schemes as auctions and barbecues. We had two maintenance men in the department that raised $5,000 on a little barbecue and dance one night on the edge of town, $5,000 it was just really fantastic. And we also had donations from clubs, like the Audubon people, Trapper's Association, Trout Fishing clubs, etc. Many volunteers were needed throughout the effort, one vital source of volunteers for the Citizen's Committee was the people in the Department of Conservation. Although there were certain limitations placed on participation, department people were interested and gave many of their off-hours to the effort and possibly maybe some of their on-hours. Much of

the group's volunteer office help consisted of wives and department employees. The committee sought and got endorsements from all state and national conservation groups from the National Wildlife Federation, AAUW, National Audubon, Secretary of the Interior and the NRA. Individual endorsements came from people like Marlin Perkins and H. Knapp Bree and a number of other celebrities including Sir Edmond Hillary. Those of you who don't know who Sir Edmond Hillary is, he conquered Mount Everest, but he happened to be hunting with me one day and I got him to sign a letter while he was there. We used that a couple of times too. The CCC had a state chairman and steering committee which made the decisions and backed up the full time staff. It took a committee group like this to keep the effort moving and keep up the morale of volunteers and there was a newsletter that went out periodically to keep up on the progress of the campaign.

Opposition, maybe some of you will be interested in this, to the proposal came from several areas and the same type of opposition would probably surface in other states. A business finance lobby, the Missouri Public Expenditure Survey, said it opposed the amendment because it earmarked funds and would not allow for legislative control. The amount of revenue produced they said was beyond that which was needed. Those newspapers which opposed the amendment did so largely on the basis of a news release from the Public Expenditure Survey. Some farm and landowners groups opposed the amendment because there was a fear of a land grab in eminent domain even though the department had pledged not to use condemnation in acquiring new public lands. Opponents said the addition of public lands would hurt county property tax receipts. Over all, the opposition was fairly low though and where it occurred the Citizen's Committee countered with appropriate media. The petition drive itself was an important weight in farm on a personal basis, 200,000 potential voters, about the need to provide funding for expanding conservation programs. The hundreds of thousands of readers of the department's conservationists were well informed of the proposal and here again, I would like to say the only thing we talked about in department was Design for Conservation. The Federation Citizen's Group talked about the actual tasks, but after awile they got so close like this you couldn't separate them. So it was to our advantage although we did get some criticism from various people talking about the tax; but actually we didn't talk about the tax, we talked about Design for Conservation.

The department used every means available to inform Missourians about the conservation program. The methods included a full length feature called "Design for Conservation", slide show with still photographs, special editions of the magazine, news releases, radio and television shows, all of us in the department gave speeches, exhibits, and we also had some special publications. There were a number of things that worked in the project, the Conservation Federation of Missouri, a thousand volunteers, donations from many people and helpers with expertise in different areas. But most important, of course, were the 900,000 people that voted "yes". You might be interested in knowing that the proposal carried strongest in the metropolitan areas and also where we had colleges carried very good. It carried weakest in the rual areas and this you might expect. Our most recent activity on the design has been to publish a monthly progress

report in the conservationists; we use the backpage for this. Although we will not receive any money from the tax for several more months, we have been active in that free fishing has been granted to people over 65 years of age. We have also already begun expanding nonconsumptive programs on personnel. We just hired a man to take charge of the natural history section which was recently started. In March we conducted a series of town hall meetings throughout the state to find out if we're really on the right tract. We held 13 meetings around the state, 1400 people attended. The rationale of people attending each session generally was very positive. We had something like 500 comments made at the meetings and all of them offered advice and encouragement on the implementation of Design for Conservation. Various aspects of land acquisition drew the most comment, some said we should make it a top priority, others wanted to see specific types of habitat acquired. The first year of this program we were budgeting 80% of our monies for land acquisition, that's 4/5 of our budget. We are picking up 152 new people in the next two months, we've already started picking them up at the present time. In summarizing the meetings, one thing they proved is that we were on the right track for design with minor program modification adjustment, we got some new ideas, we have a clearer view of our priorities, and it showed that the people are behind our program and it proved that our thinking back in 1970 was sound on Design for Conservation.

In closing, I'd like to say that constant vigilance will be required to keep our new funds; the Legislature is already attempting to siphon some of them up. They introduced a bill in the last session to take 2% of the funds as a collecting fee, this is $500,000 to collect these funds which is exorbitant. We're taking this to court; we know that there will be other attempts made to get the funds so we will have a constant vigilance in order to keep it. Another thing they did, they tried to transfer the parks over to the Department of Conservation and let us fund it. That would mean another $8 million lopped off. We're in court now on two cases, taking them to Supreme Court on some of these things that have happened in the last legislature. I'll be here for a few minutes if you have any questions. Anyone have any questions? Alright, I have a few extra copies here. There's a little more detail involved in these reprints so you're welcome to take them if you like. Thank you.

Of Course, the Nebraska Wildlife Habitat Plan is quite different from the one you just heard discussed. Today, we're talking primarily to administrators from other states and other agencies. These for the most part have essentially the same problem that we do. The speaker that will follow has this problem, but they run up about 50-60% public lands. We don't have problems associated with 50-60% of Nebraska being publicly owned. As Bill said this morning, Nebraska has around 96-97% privately owned land. That doesn't mean that the 3% remainder is therefore ours in the department to manage for the glories of recreation and wildlife. So we are essentially a private land state. The same applies to most of the Great Plains states.

Well, the problem is not new. Department employees, certainly the commissioners, whether five, ten, fifteen years ago, felt the urgency of the habitat dilemma. Department staff was pressed to create a miracle to develop habitat that would return the species to the glorious days of the past. Obviously, not too many miracles are around today and we don't feel the habitat plan in Nebraska is a miracle. At best, we hope it may reduce the decline in habitat primarily upland game.

Nonetheless, the Commission decided to bring all resources to bear on the problem, so they decided to go with a habitat conference in February, 1975. This was by invitation. I think we ran about 125 people, federal, state agency people, private landowners, farm organizations, business representatives, and sportsmen's groups of various sizes. These were invited and given a charge at the opening session.

The Governor was the lead speaker and did a real good job. We've heard several comments this morning about the Governor's comments here today. Well, I think he helped, it certainly helps when the chief executive of a state will help you along and also sign the bill when it finally gets through legislature. That bothered me once in awhile when the bill was in the legislature. "Has anybody asked the governor yet whether he's going to sign this"? "Well we'll get to that, we'll get to that." I wish he'd get to it in a hurry because he is noted for the little old v-e-t-o, but he did sign! We had our meeting. It was appropriately divided up, a very important portion was funding. This took place one day then this was gathered up into the fairly late night hours and reported back to general session of the conference.

In essence then from this conference came a bushel of ideas of what should be done, and funding ideas. You wouldn't believe some of the very interesting funding ideas that a group like that can come up with. This was handed back to the Commission. They appointed a small committee of staff and commission. The charge to them was to sift this down and come up with their best recommendations back to the full Commission. This they did in fairly short order. The commission then blessed this and said this will become our plan. Let's get it in writing, let's get on down the road to legislature. I won't go too much into detail of this, it didn't all work as planned. Well I will go into just a little of it. The Constitution Revision and Recreation Committee turned it down 6 to 1, and we thought for a day or two that that was probably the end. We had a

senator that apparently received some calls from sportsmen and landowners that they didn't like this action too well. So he in the end introduced this as a private bill on the last day bills could be introduced.

The bill had some other things in it not important to the habitat portion. This then went into the legislature, back to the recreation committee, back to the legislature, through there with excellent support, and then to the Governor for signature.

During this period of about 2 months we did go to the public, I'd suppose you would say the interested public, those that had enough interest to come out to the public meetings. I think we held over 20 public meetings in two months time. The sponsoring senator went along with us on most of these. It was a fairly small team. The Senators comment was that he wanted to know what the people out there had to say about it so when he was asked on the floor or by other senators he could speak from experience and not from hear-say. He was very helpful to us in these meetings.

After passage we had to go back to the legislature in the recently expired session and get our plan approved. You will find this plan over on the table. It is a dual purpose plan. It is promotional in it's somewhat glamorous meaning. It has the good things that should happen. It has a budgetary element within it and a projection of accomplishments. That is what we are proceeding toward at this point. We started to collect funds on this January 1, 1977. We could not expend any from this until July 1, 1977, just a few days ago.

As with many plans perhaps the easiest part is getting it drawn and accepted, as Mike might affirm. The hard part is ahead. Now we are 17 or 18 days into the implementation, so several are asking what we've done. One of the little tricks that I pull on some people in house is "what did you do for habitat today--and I was not altogether joking"? There is much yet to be done in that implementation. It is probably much more difficult than the part that preceded it.

Essentially we have a three phase plan. Acquisition is a good place to start--that is approximately one-third of the funding. We think we made a wise choice in programming one-third of our funds to acquisition. We had to compromise on a point or two. I think it was very necessary that we did so. We will make a payment in lieu of taxes for all wildlife lands acquired after January 1, 1977. I think it was important that this clause was in the bill. It might not have passed if it hadn't been there.

Another clause ended up in the bill, that is eminent domain. The bill prohibited the use of this devise to acquire wildlife lands. We already were pretty tightly tied down on that, but it was apparently satisfying to the legislature to be able to put assurances in the bill. I don't think we will have any problems acquiring good wildlife lands on a willing seller basis. We have a pretty good reserve of offers reasonably scattered about the state.

Another phase of the plan was the Private Lands Habitat Program.

This portion of our plan might be the most difficult to show results, however with so much private land in the state, we must labor in this area. You cannot legislate habitat on private land by mandate. It must be incentive based. Our Private Lands Habitat Program doesn't really contain any new miracles. It contains an old ingredient - dollars - that will speak if we get the dollars from the hunters and from the fishermen.

We have in this state Natural Resources Districts. This is unique to Nebraska. We have 24 of them; they replace the numerous multi-purpose districts. I even see that most recently the NRD say that they are special purpose districts even yet. I must think about that one for awhile. The NRD's have broad authorities and they're rather well detailed. There are twelve to fourteen items authorizing them to expend funds, and to tax on a local basis. Wildlife habitat is one of these, recreation is another.

It seemed wise to step to some established creditable group that is related to the rural sector in Nebraska. There might be other groups, but these Natural Resources Districts seem to be the logical ones to step to. We have had all sorts of questions and probably will on down the road - "Well, why didn't you do it directly with the landowner"? Yes, I can think probably as well as anybody some of the things that would have been avoided by this approach. It is not mandatory that the natural resources district enter into this agreement with us.

I do have with me copies of the base agreement and the model habitat plan. Our agreement is based on the Inter-Local Cooperation Act which we have in Nebraska. Our Private Lands Habitat Program gives us a theme of likeness throughout the state. On the other hand, it allows for flexibility across the state. Enough on the private lands habitat program.

The third phase of our plan pertains to lands that the Department owns or controls. These are few in number. We are to expand and intensify our habitat management efforts on these lands. We are proceeding right now to do this through various means.

The other aspect of this third phase is the other public lands of the state. Obviously, we don't have to buy these lands. You are aware that all of these other public lands have a primary purpose. It may be for irrigation, it may be for forestry, or flood control--so on down the road. We cannot block out that primary purpose, but quite often that primary purpose can be well served and yet we can achieve wildlife habitat benefits if we'll put the dollars into it. We are already well along the way. I think especially of the Corps of Engineers, and the U.S. Forest Service. So that is the three phases of the program.

With that, I am very close to closing what comments I have. Bill mentioned this morning the straight line projections on income. we make no apology for making straight line projections; on what other basis do you make it? Attrition, yes, we are going to have attrition. We don't know how much; we won't have any measure till mid-November. We will know for certain by January 15, 1978. Then we can regroup and decide what we do based on funds available. Many people have a little trouble differing between our Department's general fund allocation and Game cash fund collections. Nonetheless, in our Game Fund budget we can't spend that until we get it.

The final thing, will it work? It is not mine to decide whether it will. Ask us three years down the road, five, ten. Then we or whoever is there at that time can make some better answer and probably the best answer will come from the beneficiaries in the future.

With that I think we will move into the third portion of this part of the program. Mr. Goulden.

USER-PAY WILDLIFE HABITAT DEVELOPMENT PROGRAM

Richard C. Goulden

Background

Manitoba consists of some 252,000 square miles, almost 3 1/2 times the size of Nebraska. However, most of Manitoba's white-tailed deer range is confined to what we call "Agro Manitoba"- the prairie and parkland belt ranging from the southeast corner, northwestward to the Pas, comprising about 54,000 square miles - 20% of Manitoba - or roughly the size of Iowa. Generally this zone encompasses the bulk of waterfowl habitat as well.

It is this zone that has felt the consequences of intensified agriculture, industrialization, transportation development and urban growth. Here, then, where the land base is the most productive, where habitats are the most versatile and where people are concentrated, is where Manitoba's wildlife habitat has suffered unparalleled destruction and deterioration.

For example, between 1947 and 1973, 42% (nearly half) of the deer wintering habitat in six key areas was completely wiped out.

Between 1951 and 1974, 3500 square miles of land in this area was cleared of native vegetation and put to intensive agricultural use.

Statistics reporting on the loss of wetlands are equally disconcerting. In the famed Minnedosa Pothole country of southwestern Manitoba, there was a 14% decrease in wetlands and adjacent upland vegetation in a short six-year span between 1964 and 1970. Virtually all of this habitat was converted to agricultural use. Between 1970 and 1974 in that same area wetlands alone declined another 3%. Suffice to say that we have documented and chronicled the disappearance of habitats (and wildlife) and while being alarmed, we have been largely unable to stem the loss. Some notable and gratifying initiatives have been mounted, but their collective impact has not blunted the inroads already made and continuing.

For example, we have purchased 81 square miles, about 52,000 acres, of habitat for provincial wildlife management areas within the last five years. This was done through programs cost-shared with the federal government (alternate land use) and 100% provincially funded programs (Resources for Tomorrow). We now enjoy having in Manitoba some 47 wildlife management areas covering 4100 square miles. But this includes large tracts in the north beyond Agro Manitoba, and merely protects that which was already on the land. It does not restore or enhance habitat. Therefore, it does not really offset the habitat losses taking place.

To complicate matters, in Agro Manitoba about 60% of the land is privately owned. Here we need imagination, flexibility and big dollars to do the job.

The Program

After much deliberation and consultation with several states and provinces, among them the state of Nebraska, we developed a proposal for habitat maintenance and enhancement based upon the "user-pay" principle.

This is not a new concept to state fish and wildlife agencies. You have operated programs from "ear-marked" or "user-pay" funds for decades. And I know that there are disadvantages inherent in being tied to or governed by the funding supplied by any user group --sportsmen or whoever. Often I have quietly given thanks for the fact that we, in Canada, generally are not dependent upon the sale of hunting licenses to support our programs.

Yet upon examination, fortified by experience, we have been forced to concede that funds voted by our legislature from the general treasury were simply not sufficient to do the job of maintaining deer and duck habitat. Moreover, we have not been, and are not likely to be, particularly successful in obtaining large new budget allocations for wildlife habitat development - given other priorities and programs of government.

Interestingly, there is precedent in Manitoba for "ear-marked" funds. The prevention of and compensation for damage caused to agricultural crops by wildlife is largely paid from funds raised through the mandatory purchase by hunters of a $3.25 "wildlife certificate".

Thus, we developed a proposal, and gained approval for it, to levy an impost upon deer hunting licenses this year to create a revenue source which would be used exclusively for development of deer habitat. This is an interim measure, designed to get the program into operation this year. The proposal calls for a revision to our provincial wildlife act (probably next year) which would enable the creation of a "wildlife habitat development stamp". All hunters would be obliged to purchase this stamp before being eligible to obtain a hunting license of any kind in Manitoba. Although the fee for this stamp has not been established, it is expected to be between $3 and $5.

The first priority for expenditures will be white-tailed deer range; next will be duck nesting habitat. We have been given authority to begin habitat enhancement programs immediately, using existing wildlife appropriations. These expenditures will be reimbursed from revenues generated by the temporary impost upon deer licenses which soon will be on sale for the 1977 deer season. This year's program will be a modest $66,000 effort.

Criteria established for these initial expenditures exhibit our concern that the program will be well received by Manitoba sportsmen.

We want activities under this program to be:

- Effective
- Acceptable
- Visible
- Innovative

Projects must have public relations value--providing positive responses among the "users" who are doing the "paying". We would prefer not to blend expenditures and activities under this program with on-going work which would tend to mask the impact of this venture.

We want projects to have as little annual maintenance cost as possible. Also, activities carried out under this program must convey the proper image. For example, we may choose not to use certain habitat enhancement techniques in areas where they may be confused with practices we have claimed to be detrimental.

This year the program will be aimed mainly at improvement of deer wintering habitat on crown-owned lands-- provincial forests, wildlife management areas and the like. Here, a variety of techniques will be employed including strip cutting, selective site cutting and the creation of small habitat plots through planting, controlled burning and otherwise rejuvenating native vegetation. This will provide important information respecting the technology of habitat enhancement while enabling the gestation of program strategies (such as: Easements, tax incentives, subsidies), for habitat maintenance and enhancement on private land. It will also provide methodologies for securing more wildlife production from the existing crown land base. For example, within the next year or so we hope to mount a program for the development of upland waterfowl nesting cover. These programs are not revolutionary but funding arrangements are unique for Canada.

Having been guaranteed a future revenue source of no mean proportion (estimated at $350,000 per year), we are now faced with the challenge of applying those resources with imagination, creativity and rigour. Our capacity to "manage" habitat will now be put to the test--we look forward to the challenge.

THE IMPORTANCE OF WATER MANAGEMENT TO THE HEALTH OF CONTINENTAL WATERFOWL POPULATIONS

Dr. Milton Friend
National Fish and Wildlife Health Laboratory

Introduction

"I have little need to remind you that water has become one of our major national concerns.-The subject of water can be viewed from the various aspects of soil conservation, agronomy, forestry, irrigation, wildlife, recreation, business, industry, law, and so on - but never alone." So wrote Ezra Taft Bensen, more than 20 years ago. The reasons water cannot be viewed from a single perspective are that all life depends upon it, and the amount of useable water available is a finite quantity.

In addition to volume, the location and quality of the water is important. Quality of course, is relative to the use the water is to be put. For waterfowl, the quality of water extends beyond its chemical purity to the combined physical aspects we recognize as habitat. Since waterfowl are a product of this habitat, the key to waterfowl management is habitat management.

Bellrose and Low in a forthcoming manuscript titled "Advances in Waterfowl Management," categorize waterfowl management under these broad topics: (1) population, (2) habitat, (3) disease. Sanderson in the latest edition of "Ducks, Geese & Swans of North America" noted that waterfowl conservation embraces four distinct entities: (1) habitat preservation and enhancement, (2) harvest regulations that permit the highest kill commensurate with the capability of the species to replace these losses, (3) control of disease, and (4) propagation.

The inclusion of disease as a distinct entity in both these publications is the result of increased awareness and concern generated by such dramatic events as the duck plague (DVE) eruption at Lake Andes, South Dakota and the apparent increase in avian cholera losses among continental waterfowl populations. However, both of these publications reflect the general lack of understanding that prevails among wildlife resource managers and administrators regarding disease processes and how they relate to the key factors they are trying to manipulate - the population and the habitat. This lack of understanding has resulted in the eruption of some disease problems that might otherwise have been avoided. It is important that we learn from these experiences so that similar problems can be avoided in the future.

Effects of Water on the Distribution of Waterfowl

Since waterfowl are dependent upon various types of surface waters for production, maintenance, resting, and general well being, the distribution of these surface waters greatly influences the distribution

of waterfowl populations. The activities of man have been, and will continue to be, influencial in causing the redistribution of waterfowl. Water control projects surrounded by agriculture devoted to the growing of cereal grains, acquisition and development of habitat for the welfare of waterfowl, goose restoration projects, and manipulation of habitat to make it more attractive for ducks and geese are examples cited by Buller as having caused noteworthy changes in waterfowl distributions.

Waterfowl utilization of "new areas" is not difficult to understand since survival is the basic biological reason waterfowl freeze over for a portion of the year making food unattainable. On the wintering grounds, space requirements for breeding and food supplies are thought to be major reasons for the return migration to the breeding grounds. For some species, the migration to find food and water is as short a distance as possible. For these species, wintering areas change from year to year with changing weather conditions. This observation has been capitalized upon by resource managers and private citizens alike to attract and hold migratory waterfowl for various reasons and lengths of time. O.K. so waterfowl migrate, and we can influence where some species migrate to once they leave the breeding grounds. So what does this have to do with disease problems. In most instances very little, however, in others perhaps a great deal. The answer in each situation involves evolution and a complex series of factors involving host-parasite relationships, for disease may have played a critical role in developing traditional migratory patterns for some animal species. To illustrate this, I'm going to briefly leave both North America and waterfowl and use a current situation in Africa.

The location is Etosha National Park, South West Africa. The disease is anthrax. The species involved include plains zebra, blue wildebeast, springbok, elephant, oryx, kudu, ostrich, giraffe, eland, and cheetah. The significance of the problem is that anthrax was responsible for 54% of the total recorded mortality in the Park from January 1966 to June 1974. In earlier days, many of the species involved migrated with the seasons in pursuit of water and forage. Fencing of farmlands and other areas adjacent to the Park has now effectively restricted animal movement in and out. However, it was not fencing, but the development of tourism within the Park in 1954 that had the greatest impact on altering traditional migratory patterns. Boreholes were drilled to provide water near roads for animals in the areas opened for tourism. In addition, new tourist roads were constructed and old roads widened. These roads were graveled and the resulting gravel pits filled with water during the rainy season, thereby, providing fresh drinking water and attracting large numbers of wildlife. The persistance of this water, and that provided by the boreholes, extended the time the migrating animals would normally spend in the wet season areas. This resulted in overutilization of the vegetation, accompanying degradation in habitat quality, and the gravel pits becoming "incubator areas" for the anthrax bacterium. Thus, for the sake of tourism, anthrax has become an enzootic disease in the Park.

Under natural undisturbed conditions anthrax was not evident and no epizootics were recorded within the Park. It is unlikely that

this disease can now be eliminated from this area due to the altered relationship of the animals to their environment, the bacteria to its environment, and the common environment they both share. The points to note are that the principal factors responsible for this disease problem are: (1) alteration of normal migratory habits due to activities designed to enhance tourism, (2) creation of suitable environmental conditions for the bacterium (incubator areas), and (3) induced contact between the wildlife and the bacterium through the utilization of the same habitat (the gravel pit water holes).

Redistribution of waterfowl from traditional migratory patterns and the concentration of these waterfowl for extended periods of time has the same types of inherent risks as just illustrated. However, waterfowl may degrade the habitat being utilized in another manner -- through fecal contamination.

A variety of pathogens are carried within the bodies of waterfowl and other animals. These organisms may be shed in the feces, and thus provide the "seed stock" for "incubator areas" if the habitat is suitably hospitable for the survival of the parasite or microorganism. Among the most common genera of pathogenic organisms found in water contaminated by human and animal feces are Salmonella, Shigella, Vibrio, Mycobacterium, Pasteurella, and Leptospira. In addition, enteric viruses are also often detected.

The pathogenic contributions of waterfowl by this means are unknown, but certainly provide a mechanism for establishing disease problems in new areas. The probability for this is illustrated by the great amount of waterfowl that use some areas and the great amount of feces contributed by the birds. Per 24 hours, the average contribution of fecal coliforms per duck is 11,000 million compared to 2,000 million for man, 240 million for the chicken and 130 million for the turkey. Of the animals tested, only the sheep made a greater contribution (18,000 million).

It is obvious then, that if conditions are suitable for survival of pathogenic microorganisms shed in the feces, threshold levels for infection may be rapidly reached. It is also obvious, that the volume of feces being shed per duck (average 336 grams per 24 hours compared with 150 grams for man) will rapidly change the environment in which the feces are being shed. The changes will then alter the survival rate of the pathogenic microorganisms. Therefore, bird numbers per unit area per unit of time becomes an important relationship in considering disease potential.

Let's now briefly look at three recent situations where artifically providing water for waterfowl contributed to major disease losses at those locations. In all of these instances, the waterfowl did not need to be on those areas at that time!

You are probably all aware that the first major eruption of duck plaque (DVE) in free-living waterfowl occurred at Lake Andes, South Dakota in January, 1973. You may also be aware that this has been the only major eruption of this disease in North American waterfowl populations. However, I doubt if many of you are aware of the chain of events that allowed this problem to occur.

The first significant event took place in 1953 about 10 miles from Lake Andes with construction of Fort Randall Dam on the Missouri River. Electrical power generation at this location provided for year round open water. Mallards quickly adapted to the open water and availability of feed in the surrounding agricultural lands. The wintering population increased steadily along with increasing mallard populations in the Flyway. Peak populations occurred in the late 1950's and then the flock stabilized at about 200,000 in the early 1970's.

The second significant event took place at Owens Bay when a new artesian well was drilled in 1957. The well was drilled to provide water for waterfowl production during the summer months and for a refuge area during the fall. However, continued pumping during the winter months caused relocation of the mallards from the cold waters below Ft. Randall Dam to the 65 degree F waters flowing from the well at Owens Bay.

The next significant event took place about 1500 miles away when duck plague was detected on Long Island, New York in January 1967. This was the first known occurrence of this disease in North America. Six years later, the virus and the mallard confronted one another at Owens Bay and approximately 40% of the 100,000 mallards present died. The magnitude of the loss was influenced by the uniformity of the waterfowl population (primarily mallards), the lack of inate resistance of mallards to infection by this virus, and the limited amount of open water present on Owens Bay. This final factor resulted in extreme bird densities and facilitated transmission of the virus among the mallard population.

One can only postulate what might have happened had the birds and the outbreak been confined to the more traditional wintering areas along the Missouri River. However, the dilution effect of a major flowing river would probably have had a mitigating influence on the eruption of the disease and the magnitude of losses that might have occurred. How the virus got to Owens Bay in the first place is speculative. The salient fact is that the mallards should not have been at Owens Bay. The problem could not have occurred at that location without contact between the virus and the birds, and without the proper conditions for survival of the virus and its transmission among a susceptible host population. Avian cholera had not been recognized as a major cause of waterfowl mortality in Nebraska prior to 1975. However, during the spring of 1975 up to 25,000 waterfowl died from this cause in the few remaining wetlands in the western portion of the Rainwater Basin. A susbstantial number of these birds died within the confines of the water area maintained for a propagation flock of Canada geese on the Sacramento Game Management Area. Treatment of the infected captive flock resulted

in control of the disease in these birds, but not before significant amount of the flock had been lost.

The factors to be considered include the following: (1) South Central Nebraska is a major spring stagging area for migratory waterfowl; (2) waterfowl migrating in the spring follow the iceline utilizing whatever open water is available; (3) a water pumping operation maintained open water for the captive goose flock, but the availability of this water was out of synchrony with the surrounding environment, thereby providing a strong attraction for early migrants. This attraction was intensified by the presence of the captive geese and the availability of feed at feeding stations within the pen; (4) the use of common feeding stations by the captive flock and free-flying birds intensified bird to bird contact and facilitated transmission of the disease; and (5) maintenance of this water area prior to the breeding season was not necessary.

Although major avain cholera outbreaks have also occurred in the western Rainwater Basin during the spring of 1976 and again this year, modification of management practices have prevented any additional losses from this disease among the captive goose flock. Water is no longer pumped prior to the breeding season, birds are being watered with mechanical devices. In addition, harrassment techniques are utilized to keep free-flying waterfowl out of the much reduced water area within the goose pen. By the time water is necessary for breeding, natural water areas within the Basin are free of ice and most migrants are using those areas, or have already passed through the Basin.

Southern Illinois

Finally, lets examine the factors involved in the major lead poisoning die-off in Southern Illinois this past winter. You are all aware that the terminus of the fall migration of the Mississippi Valley Canada Goose flock during recent years has been the refuges of southern Illinois. During this time no major lead poisoning die-offs have occurred yet in January-February, 1977 approximately 3500 Canada geese died as a result of ingested lead shot. The reason for this die-off involves pumping of water, food preferences, a snow storm, and diet.

Goose hunting in this area is primarily from blinds in grain fields. After the hunting season geese utilize the food available in these previously shot over wheat fields and during this feeding activity small numbers of lead shot were ingested by a large number of the geese. In most years the geese are probably able to cope with the amount of lead ingested because of diet. However, this year a major snow storm hit the area shortly after the hunting season making the wheat unavailable. In addition, bitter cold temperatures helped preserve the snow cover for a prolonged period.

Pumping operations at Horseshoe Lake provided some open water for the birds and corn was provided as a food source. Having both feed and water available, the birds stayed on the area, many of them dying before warming spring temperatures melted the snow cover from surrounding fields. The question that must be asked is whether or not the geese would have left the area if open water had not been provided by the pumping operations.

Power Plants

The examples just provided are situations where we as managers have intentionally used water to attract waterfowl. In these instances we have created the water source and can reverse the process if we so desire. There are other instances where waterfowl are attracted to water areas established for other purposes. Once these situations have been created, we have far less ability to reverse the process. Therefore, it is imperative that these situations be evaluated early enough to allow alternatives and modifications to be exercised when appropriate and possible. One area that should be of concern to all of you is the effects of warm water effluents from power plants on the redistribution of waterfowl.

Recently I had the opportunity to observe the influence of the effluent from a coal fired power generating plant in central Illinois. The warm water slag pond adjacent to this plant is now attracting up to 100,000 wintering waterfowl. Many of these waterfowl have relocated from the more dynamic habitat of the nearby Illinois River. The availability of food, warm water, and protection from hunting are the attractants for the ducks, not any activities of the power company. Do situations such as this, and many more like it, represent potential disease time bombs? Only time will tell, but I feel the answer is yes. The reasons for my concern have been given in the examples already discussed and involve large numbers of birds on limited habitat for prolonged periods of time, often in situations that involve periods of "stress" for the birds.

Effects of Water Quality on the Occurrence of Waterfowl Disease

I fully agree with the statement by Bellrose and Low that, "the control of disease in wild waterfowl populations is in its infancy." The major reasons for this are that the past orientation towards disease has been the host instead of the pathogen, and control rather than prevention. Water plays an important role in both concepts, therefore, a brief consideration of each is warranted.

Host vs Pathogen

A dead duck or a group of dead waterfowl is the result of a complex series of events that must involve a pathogen if parasitic or microbial disease is involved. Like the host it attacks, the pathogen also has rather specific habitat requirements if it is to survive. To be successful the pathogen must survive for some finite period of time in the environment in which it is shed so that a new susceptible host can be exposed

and the chain of infection continued. Such factors as temperature, desiccation, osmotic pressure, radiation, pH oxygen, and carbon dioxide all effect survivability of potential pathogens. These factors are continually being altered in wetlands and other water areas used by waterfowl and it is likely that these alterations greatly influence the potential for serious disease problems erupting.

In Nebraska, avian cholera has been a serious problem during each spring migration since 1975. However, only in the western area of the Rainwater Basin have heavy losses from this disease been experienced. Waterfowl population in the eastern side of the Basin are similar to those of the western side of the Basin and movement of waterfowl between the two areas undoubtedly occurs. Why then aren't avian cholera losses similar throughout the Basin? Field observation suggests that habitat quality in the problem areas of the western side of the Basin are more likely to favor a greater persistance of the bacterium responsible for this disease.

In California, heavy losses from avian cholera routinely occur on the Sacramento NWR refuge complex,but not on the nearby Graylodge State Game Management Area. Bird movement between the federal refuges and the state area is frequent, but like Nebraska, disease losses are highly disproportionate between the different areas. Why? Field observations in California indicate poorer water quality on the problem areas. Most water available to the Sacramento NWR complex has been previously used by agriculture, often several times. In contrast, pumping of well water on the Graylodge State Game Management Area contributes water of greater purity than available on the federal refuges.

Additives in the water such as pesticides and other agricultural chemicals can also be of great importance regarding interactions between habitat quality and disease problems. These chemicals may be destructive to pathogenic microorganisms present in the water. However, they may also interact in other ways, such as leaving waterfowl using these areas more susceptible to infectious diseases.

Sewage lagoons and sewage effluents also contribute to waterfowl disease problems, and it is likely that these contributions will increase in the future unless a better understanding of their relationship to waterfowl diseases is obtained. Once the problems are more fully understood, it is likely that we will be able to minimize their potential impact by managing around them. Presently, land disposal of sewage sludge and effluent is being used by more than 1,000 communities in the United States. The fertilizer and humus contents of such wastes are useful for agricultural purposes, and the water content is valued for irrigation during dry growing seasons. One of the most acceptable methods for using sewage is to flood the land and then cultivate the sewage into the soil.

Obviously, if pathogens are present in this material they will contaminate their new environment. Studies on virus removal from sewage, effluents, and other waters have emphasized the deficiencies of the various treatment methods and indicate that some viruses can survive even after secondary and tertiary treatments. Other studies have indicated that poliovirus may persist in the soil up to 96 days after sewage sludge containing that virus was applied. In addition, the virus was also recovered from mature radishes and lettuce 23 days after flooding of the treated plots had ceased.

The foregoing observations suggest that waterfowl can become exposed to pathogens in sewage through; (1) their use of sewage lagoons as feeding areas, (2) as a result of consumption of contaminated crops fertilized with sewage effluents, and (3) as a result of run-off from fertilized lands contaiminating adjacent wetlands and other waterfowl habitat. This hazard is probably greatest when a significant amount of the source of the sewage is of poultry origin.

The attraction for waterfowl to waters containing sewage effluents is great, and increasing numbers of disease outbreaks are being reported on these areas. Here in Nebraska, two spring die-offs of redheads have occurred on the same sewage lagoon during the past three years. In neither instance has the cause of these deaths been determined.

Avian botulism is a non-infectious disease problem that is also associated with sewage. In fact, the occurrence of this disease outside the North American continent during the present decade appears to be related to waterfowl use of sewage lagoons and sewage effluents. Closer to home, a recent botulism outbreak at Hollaman Air Force Base jeopardized the survival of New Mexican Ducks using that sewage lagoon.

Disease Prevention vs Disease Control

The reason an "ounce of prevention is worth a pound of cure" is that it is often far less costly to control a problem that might have been prevented. Leopold noted this in his treatise on game management when he stated that "treatment was recessive to disease prevention." It is folly to ignore predictable or developing problems with the hope that the problems will resolve themselves. The solution reached may not only be unacceptable, but also nonreversable.

Most, if not all, waterfowl managers agree that habitat preservation and enhancement is the most important need for insuring the well-being of North American waterfowl populations. The basis for this is our belief that the disasterous decline of ducks during this century has been due to man's destruction of wetland habitats needed for breeding and for feeding, loafing, and protection during migration periods and wintering. In addition, to the loss of millions of acres of wetlands by drainage, filling, and inundation, Sanderson noted that other millions of acres have deteriorated from siltation or other forms of pollution. Obviously then, there are two major considerations - the quantity and

quality of wetlands. Closely interwoven is the location of these wetlands. The current avian cholera situation here in Nebraska is an example of the interaction between these three factors.

The Rainwater Basin is a traditional spring stagging area for large numbers of waterfowl. The current drought cycle coupled with the loss of wetlands has resulted in dense concentrations of waterfowl on limited water areas for several consecutive weeks. The lack of water movement during this time facilitates the build-up of pathogenic microorganisms, and the bird concentrations present facilitate the transmission of infectious disease. Like the gravel pits referred to in the discussion of anthrax in Africa, the small basins of Nebraska's avian cholera area are becoming "incubator areas," and the migrating waterfowl that survive infection are becoming potential "carriers" to create new outbreaks of avian cholera at some other place and time.

The problem has been identified! Avian cholera has been diligently battled by the Nebraska Game and Parks Commission for each of the past three springs! However, the war is being lost because the fight is against the symptoms of the problem, rather than its cause! Once again we are exercizing disease control - instead of disease prevention.

Nebraska's efforts have not been in vain. They have resulted in a "holding action" that has greatly reduced the number of birds exposed to avian cholera and, thereby, reduced the probability of these birds creating new outbreaks. Unfortunately, "holding actions" are only temporarily effective and if we are to win the war we must deal with the cause-insufficient habitat in a key location at a critical time of the year. Yes, <u>spring habitat needs</u> also require attention.

The importance, of spring habitat is readily apparent when one views this avian cholera problem and realized that these birds spread out over a large area when they leave the State. Reports of avian cholera at Freeze-out Lake in Montana and in Saskatchewan this spring suggest that the disease is being carried northward by waterfowl infected in other areas. Increasing reports of dead nesting waterfowl on northern breeding grounds suggest avian cholera activity in those areas. However, studies relative to the magnitude and cause of this mortality have not yet been carried out.

The transient nature of waterfowl moving through Nebraska during the spring allows supplemental habitat needs to be provided on a temporary basis. Pumping of water on waterfowl production areas and other holdings can be synchronized with the movement of waterfowl in dry years and annually in areas where additional habitat is needed to reduce bird concentrations. In addition, bird movement can be facilitated by the sequence of pumping on different areas. The intent is to prevent avian cholera from erupting. However, these same techniques can be employed in combatting an outbreak.

Conclusion

Wetlands are being lost for a variety of reasons. However, all of these reasons have a single cause - an increasing human population. As our population grows, greater demands are placed on the land to provide food, shelter, employment, and recreation. All of these demands have an inherent energy demand that must also be derived from the land. Therefore, wildlife resource managers are caught between increased recreational demands upon a dwindling waterfowl resource and increased economic demands for the land that produces and perpetuates that same waterfowl resource.

This continual conflict and its resulting attrition of our wetlands is of great concern to all of us and is reflected in the conclusions by Bellrose and Low that (1) "continued but accelerated acquisition of wetlands and (2) more productive management of existing wetlands is essential to meet the agricultural thrust of the next 30 years."

I sincerely hope that in the pursuit of this acquisition program, full consideration will be given to the role of habitat distribution and habitat quality throughout the year, not just during breeding, fall migration, and wintering. In closing, I refer to two related and popular bumper stickers. The first of these reads - "Think snow." When considering habitat requirements I would like all of you to --"Think Disease." The second one reads - "Don't eat yellow snow." If you won't - don't ask a duck to. Hopefully, by working together we can clean up the environment our waterfowl must use, and in that way, help to PROTECT OUR WILDLIFE.

VIEWPOINTS ON FUTURE OF WATERFOWL HUNTING

Harvey K. Nelson, Associate Director

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I don't believe there is any dispute about the fact that an important objective of waterfowl management is certainly to provide utilization of this resource by the people. Of course, utilization comes in many forms. Sport hunting by more than three million people annually is one of the principle uses in this regard. Non-consumptive uses by a large segment of the public is the other dimension. One of the problems we are frequently confronted with concerns the Service's position on hunting. What should our role be in this overall effort in the future?

I would like to refer briefly to a portion of a paper that I presented to the Mississippi Flyway Council at their meeting in Duluth, Minnesota, last year. Some of you probably have received copies, but I think it is pertinent to the discussion here today. Let me reiterate briefly some items that I covered in that particular paper. We said at that stage, and I believe they still hold true, that from time to time our Service questions itself internally and is questioned externally about the Service's position on hunting. Most of you know that the Director of our Service has often stated that the position of the Service is pro-hunting, which is implicit in most of the field programs we carry out. The fact that Service policies support hunting as a legitimate tool of scientific game management, however, does not automatically imply that the Service is against those who feel differently about hunting. Given the fact that the Service operates to satisfy not only its traditional clientel, but all citizens of the nation, we have a dual role to play. We also believe that it is not appropriate to enter a strong debate over the morality of hunting in our official actions and publications. I don't feel we are going to gain too much by disputing the issue on that basis, but I also believe the Service must maintain a strong stand in defense of sport hunting opportunities.

The people of this country are now more animal conscious than ever before in our history and I believe this is evident by many things that we see happening in our everyday life. All you have to do to verify this is to look at the long list of conservation organizations; nationally and locally in terms of sportsmen's organizations; they number in the thousands in the lower 48 states. We believe that it is not necessarily our responsibility as stewards of the fish and wildlife resources to scratch our heads or puzzle over this phenomenon. We must accept it and begin to think differently about who our total constituency is. We must accept the fact that there is a wide range in constituency as interested and serious citizens, who are as committed to the well being of wildlife as we perhaps are. They may, however, espouse different interests and alternatives, many which do not necessarily agree with our collective objectives or aims. We believe though that they must be recognized on their own merits. In short, our clients are no longer just fishermen and hunters; they are sort of everybody and we must learn to recognize their concerns and utilize the support they offer, as well as, the merits of their ideas. As we move more into the nongame area, we are going to become more directly involved with these types of

people. I believe they have a legitimate right to make claims on the use of American wildlife and they are beginning to do just that. Perhaps some of their demands are not based on the soundest biological rationale, but that is not necessarily always the issue. The issue is really whether the professional managers of this nation give consideration to the opinions of these groups as they do to the hunting and fishing fraternity. There must be some kind of a balance. While we must recognize their interests, that does not mean we drop our guard insofar as sport hunting interests are concerned.

The views of private conservation groups must be blended into the decision making process at the local, State and Federal level. There is really no other way to get the job done. Most of you are familiar with the problems we have encountered in legal action and public participation in our own regulatory process the last few years. In this decision making process, one of the long standing challenges to smooth Federal-State working relationship is the complex administrative structure for establishing annual waterfowl hunting regulations. We are about to enter that painful process again for the next several weeks. Although it is a very interesting activity, and I think it has been streamlined in recent years to where we no longer have the long debate over exactly what the precise regulations may be, there are easier ways to get this job done and we are trying to find those mechanisms. We believe that these procedures are designed to gather the very best knowledge and expertise in the broad field of waterfowl management and we hope to bring this to bear on the overall situation. Those of you that are currently involved in this procedure know that even at this level of effort, the results don't always satisfy everyone. That is sort of the dilemma we find ourselves in, trying to address not only our viewpoints on the hunting picture in general, but specifically how do you begin to attempt to forecast the future waterfowl hunting.

I believe that the future waterfowl hunting rests really on two issues--on one hand the biological problems associated with development of sound annual hunting regulations, and on the other hand the socio-political problems. The biological problems are more comfortable for most us to deal with even though we never seem to have enough data to meet our demands. But it goes without saying that we all recognize waterfowl populations fluctuate with annual and short-term changes in habitat quality. The long-term status of waterfowl populations depends really upon how well we can preserve the base habitat, whether it be production habitat, migration habitat, or wintering habitat. As I discussed earlier today, we have long been involved in a major habitat preservation program with major expansion occurring during the last 10 years. Most of the States, the Canadian Wildlife Service, and the Provinces collectively support the concept of habitat preservation. The degree to which we are successful in accomplishing that part of the total habitat preservation picture largely depends upon the resources we have to do it with. On the other hand, in the private sector, we have organizations like Ducks Unlimited, which through their new funding initiative, are beginning to amass considerable sums of money directed to waterfowl habitat preservation. We need to look at all these elements more closely so as to determine how we can properly put together all these pieces so as to develop a more effective national program and international wetland preservation program.

The waterfowl population status as measured over the last two decades is remarkably good considering the rate of wetland destruction and related depredation

problems. We have not seen any violent fluctuations in most general populations. At times I believe we try to sharpen our regulatory process too finely in order to determine the allowable harvest. I'm not sure we have that degree of precision that we sometimes imply in everything we try to do, although we should continue to strive for that.

There are other influences we must recognize. As Doctor Friend pointed out, there are some serious chinks in this armor that we need to keep looking at, identify their impact, and determine how we incorporate these kinds of things into our ongoing management program; diseases being just one of several in this category. Generally, we can deal with the biological problems.

Social problems, in my estimation, are a different issue. Certainly the anti-hunting movement is very vocal and perhaps gaining momentum. To some degree the law suits that we all find ourselves being involved in are a nuisance but they can no longer be ignored. I believe that some of the strategy that is being developed in the anti-hunting movements is really more of a probe for weaknesses in the biological rationale and the technical procedures for the establishment of hunting regulations. I am more convinced that the court cases we win or lose in the future, whatever they may be, will likely stand on their biological justifications alone, as long as we deal in facts. We are more apt to be subdued by some legal technicality or procedural issue. This day and age you really don't talk about regulatory procedures without having a lawyer at your side.

The current process may be useful in that it forces us to examine our case very closely. As I mentioned earlier this morning, we can no longer afford to take risks, to gamble on the fact that we have done the best job possible for a given regulation development. I think we need to be absolutely sure we can defend whatever our position may be, whatever our recommendations are. Those of you here that have been involved in Flyway Council deliberations over the last 10 years have seen this kind of a change. We need to be absolutely sure of our grounds as we develop recommendations for annual migratory bird hunting regulations.

The anti-management attitude, as I mentioned earlier today, is being fostered by many interest groups. Again, I believe that sound management will withstand those challenges. It is poor management that will not survive, and we need to be ready and able to identify what constitutes poor management in our ongoing collective programs. Here again it is those kinds of technicalities that are going to get us in trouble in most cases. No hunting would be poor management in many instances, whereas others will proclaim the opposite. Better information is needed to indicate to the public and the courts that we can in fact provide hunting opportunity for most managed species and maintain the resource at desired levels. Again, this is a matter of general agreement in terms of what those levels should be.

We have some other issues that are becoming more prominent on the hunting scene. We are well aware of the question of subsistence hunting in Alaska and Northern Canada. The native people in these areas are becoming more aware of their rights. They are demanding those rights and will perhaps be given a greater role in determining the annual harvest for subsistence purposes. This may still

be tested in courts but the trend seems to be that way. This is an important issue we need to more fully understand. These are kinds of things that we sort of brushed aside in previous years, but we can no longer do so, and they will have an impact on the future of waterfowl management and development of hunting regulations.

Considering these social problems, we certainly have to be more deliberate and more accurate in the assembly of information to defend our recommendation and our judgments. Part of this is an educational process, and we have not always done the best job about informing the public as to why we must establish a certain regulation in the migratory bird area. I think the concern over September hunting of the mourning doves is a case in point. We have all said, so what! We know that about 10 percent of the mourning doves may nest in September in certain northern States, but does it really have any biological significance? We can demonstrate that September hunting may not have any biological impact if you are looking at 500 million mourning doves as an average population level, with about a 50 million harvest, and 80 percent of the total mortality resulting from other natural causes. Biologically, we can make a pretty good case, but we are confronted with other concerns about humaneness and morality. Where do we go from there? I believe this presents a somewhat different dimension, but I mentioned these concerns because they are perhaps new to some of you. Year by year different issues surface in different ways. I believe it is important that we must build a good base of biological information to support our analyses of these questions, and that we translate our interpretations to the social problems that seem to be increasing. In some cases there are no good pat answers.

Looking to the future, I believe we should strive to avoid interagency conflicts over various aspects of our migratory bird management program. Whether it be a matter of having one more mallard in daily bag limit, the implementation of steel shot, the validity of the point system, or all the other little things we have argued about over the years, we need to get our act together.

In attempting to predict what kind of waterfowl hunting may we have in the future, I'm optimistic. Realistically, I believe that we can continue to have waterfowl hunting and other migratory bird hunting for a good many years. The crux of the problem relates basically to the amount of habitat we can continue to maintain for that purpose, both for the birds themselves and for hunting opportunity. This is nothing new. You have all said the same thing to your own troops time and time again; I don't believe I need to reinforce that. Equally important, I think we need to take a good hard look at the actions of hunters. Reference was made earlier today about the "slob hunters" and how we must clean up our act a bit to eliminate that stigma. We must accept the fact that the nonhunter has a legitimate interest in, and a right to use, a resource; and they are going to demand attention and demand that right. To what degree they carry out that demand is the question.

In summary, we must understand and accept that short-term waterfowl population fluctuations are to be expected. We should avoid over reaction to temporary changes in the status of a renewable natural resource. As I said earlier, sometimes we try to build too much precision into the management of these birds. We are caught on the horns of a dilemma; we've gone through a whole series of activities over the last 10 to 15 years that have been largely species management

oriented. Yet we lack that degree of precision for many species. Sometimes it is necessary to manage a given population of geese or a given species of ducks quite precisely. On the other hand, there is a strong tendency toward falling back a bit and consider the possibility of simplifying regulations. We have essentially done this in the Pacific Flyway where they have a more stable situation, and there is not as much of a risk involved. We need to be looking at these kinds of possibilities in our overall waterfowl management program for the future. Perhaps we wouldn't have to put as much emphasis on annual population fluctuations but concentrate more on habitat situations.

I don't believe there is any question that as we move into the future that when we are establishing hunting regulations for waterfowl and other migratory birds we better err on the side of the birds. We are all getting that message clearly these days. Again, I don't want to be pessimistic, but I think it really goes back to the fact the better information we have, the better job we can do to build our own case. This comes to the fine point of how much effort is it worth putting into the job to get that degree of precision certain people desire? As we said earlier, the main threat to waterfowl hunting in the future really relates to habitat base more so than population fluctuations, except for certain species. I'm generally optimistic about what the future has to offer if we can come to grips with the real biological problems, and then correcting some issues that we don't know enough about. I'd rather see more effort go into the overall habitat preservation area, and then better understand the whole sociological impact that we are being faced with in a variety of dimensions. In doing so, we can collectively build a sounder waterfowl management base that we can all subscribe to and yet be less concerned about the finite details of season length, bag limits and other local area regulations.

I would like to close by citing some excerpts from an earlier paper I gave on a related subject. Let me reiterate that we in the Fish and Wildlife Service view the anti-hunting movement as more than just an attack on hunting per se, even though most such pressure groups deal with the unethical actions of "slob hunters", and the expressed view that killing in any form is intolerable. There is strong evidence that scientific wildlife management is under attack because management is usually associated with maintaining huntable surpluses. As responsible resource managers we need to do everything within our power to clean up the unsavory aspects of hunting programs. We must demonstrate that good, sound scientific wildlife management is in the public interest and is an important consideration in maintaining a wholesome environment for wildlife and people. We need to keep hunting in the proper perspective from the standpoint of both recreational opportunity, public enjoyment, and as a tool in population management. This will require greater skills and precision in some of our management efforts. It must include greater emphasis in communications and public understanding. I believe that here, in the final analysis, is where many of our problems rest. I'm not going to attempt to make any other projections. You know that if we can maintain that habitat base, hopefully we can cope with these other problems and forces that are building. We must keep working together toward maintaining a reasonable and logical approach to migratory bird management programs that we are collectively involved in. I'm optimistic that we will succeed, and that we will continue to enjoy hunting migratory birds for a good many years in the future.

Panel Discussion

EFFECTS, ACTIONS, AND REACTIONS TO DROUGHT

BY
FISH AND WILDLIFE IN MINNESOTA
David B. Vesall, Director
Division of Fish & Wildlife
Minnesota Department of Natural Resources

The forest fire situation in Minnesota during the summer and fall of 1976 was the worst in 65 years. 144,611 acres were burned over by 3,473 fires. In an average year Minnesota has about 1,000 fires which burn about 50,000 acres.

The situation was so bad last year that our Department of Natural Resources, with help from local organization and agencies and individuals, fought what could be likened to a war to protect lives, property and resources. The following will give you an idea of the extent of involvement:

15 aircraft were used, some with infra-red sensors

20 special crews were brought into the state

140 special pieces of equipment were used

38 bulldozers worked on one fire

179,000 gallons of fire retardent were used

11.2 million dollars spent on the fire fighting operations

2.3 million dollars was reimbursed from the Federal Government.

The 1976 hunting seasons began September 1. On September 7, the Huntersville fire burned 24,000 acres in 24 hours and destroyed half-a-dozen houses. After consultation with the State and Regional Climatologists, the following areas were closed in the 35 counties where burning

had been banned effective September 13:

Certain forest roads, all wildlife management areas, forest campgrounds, all state parks, recreation areas, waysides, canoe routes and trails as listed. On September 26, the hunting seasons were re-opened until 11:00 a.m. each day in the burning ban counties because of the cooler temperatures and high humidity during this time of the day.

On September 29, the Regional Climatologist presented a forecast for hot, dry and windy conditions for the next several days. On September 30, the Commissioner modified the burning ban counties so that 42 of the 87 counties were included in the ban area and postponed all hunting, trapping and fishing seasons in those counties. These counties were in central and northern Minnesota.

The Superior and Chippewa National Forests and the Federal Waterfowl Production Areas followed the State regulations.

By this time, the fire situation was so serious it was necessary to take these drastic actions to keep people out of the forested and extremely dry agricultural regions of the State to reduce the incidents of new fires, for safety reasons, and to reduce interference on fire fighting operations. The bans were generally well accepted by the public except for some disgruntled individuals who felt that the fishing season should have been left open. Restriction occurred at a time of the year when the resort business was tapering off as is customary in normal years. Otherwise the resort business would have been much more affected and complaints more numerous.

All personnel in the Department of Natural Resources was involved

around-the-clock in various phases of fire fighting operations and control. This meant, of course, that personnel in the Division of Fish and Wildlife as well as the other Divisions were withdrawn from their normal duties.

On October 23, the northern part of the State was re-opened for Waterfowl, raccoon and unprotected species (both hunting and trapping) and fishing was also re-opened. The seasons in the lower third of the State were not closed at any time. On October 29, the remainder of the seasons were reopened State wide except the deer firearms and bow and arrow seasons which were delayed about two weeks.

Federal regulations allow extension of waterfowl seasons when the seasons had to be closed because of fire situations. We took advantage of this and extended the duck and goose seasons until December 11 and December 6 respectively in the northern two thirds of the State where the closure had been in effect. This was mostly a paper extension because we have a very cold fall plus the fact that normally we have early freeze-ups in November in the northern part of our State.

The spring of 1977 started out as a repeat of the serious fire situation in 1976. By May 26 of this year there had been 1,495 forest and grassland fires which destroyed 168,080 acres. Soil moisture is still at this time deficient in western and northern Minnesota. The prediction is that it will take until 1980 with normal precipitation to get lake levels back to normal. Fortunately, rainfall was sufficient in June and early July to reverse what started out to be a serious situation. The long range forecast is for a dry summer with the possibility of a serious fire situation again this fall. The climatologists say that the spring of 1977 was the warmest since 1891 and on the basis of past records

there is a 63% chance of drier than normal conditions in July and August. Let us hope that the forecast will not be correct but our experience with the climatologists last fall and this spring indicates that they did a good job of forecasting.

Drought related losses sustained in 1976 fish and wildlife management programs are shown in Tables I and II respectively. Drought related costs projected to date for the 1977 wildlife management program are shown in Table III.

Pursuant to the Emergency Drought Act of 1977 (P.L. 9518), the Division of Fish and Wildlife submitted a request on May 27, 1977 to the Regional Director of the Bureau of Reclamation totaling $438,500 for mitigating damages to our wildlife resources caused by the drought conditions. The request was limited to projects which involved developing new water sources on State wildlife management areas.

The curtailed 1976 hunting and fishing seasons reduced receipts into the game and fish fund and acquisitions by approximately one-half million dollars which was less than anticipated.

The below normal precipitation in Minnesota during the past three years and the severe drought of 1976 have effected Minnesota wildlife in several ways. Overall, the dry weather has been detrimental to fish and wildlife and their habitat. We should point out, however, that drought is a natural phenomenon and has impacted on wildlife and their habitats throughout history. But the presence of man as a dominate force in natural ecosystems no doubt makes the effects of droughts more pronounced now than in presettlement times. Some of the known and possible effects of the 1976 drought on fish and wildlife are as follows:

Farmland Wildlife

1. Direct effects --

a. Drop in game bird productivity. Production of pheasants rabbits and Hungarian partridge was possibly enhanced by dry weather, particularly in 1976. However, drought-related loss of nesting habitat (more mowing, see below) and a decline in the amount of forage probably more than offset increased production.

b. Drop in deer productivity. A decline in deer productivity in southwest Minnesota has been in evidence since 1975. Last year production may have been off up to 20% in parts or all 15-20 counties. This appears to be a result of dry weather. Data is still being analyzed to determine the extent of the decline in production.

c. Susceptibility of deer to disease. B.V.D. and blue tongue associated with drought has been showing up in states to the West. This is indicative of deer being under increased stress -- no evidence of an increase in diseases in Minnesota, but with the drought, the situation is at least generally comparable to the West.

2. Indirect effects --

a. Destruction of nesting habitat. High demand for hay has resulted in more cutting of roadside vegetation for forage and just mowing in general.

b. More intensive grazing. Lack of adequate forage has resulted in more intensive pasture use.

c. Drainage up. Dry weather has allowed drainage to be undertaken

where such would be normally impossible.

d. Muskrats forced out of marshes. The drought has forced muskrats out of marshes into drainage ditches -- such movements into what is probably less desirable habitat could effect muskrat survival and productivity. There is some evidence of rather substantial declines in muskrat numbers in southern Minnesota which is apparently at least to some extent drought-related.

Wetland Wildlife

1. Direct effects --

a. Waterfowl harvest dropped from an average 155,000 per year to 123,000 in 1976. Hunters dropped from an average of 1 million to 600,000. Although the drought reduced the number of potholes available for breeding waterfowl this spring, there were still sufficient numbers to allow for a 40% increase in the breeding mallard population. Teal populations are down primarily because of the loss of the small water areas where they like to nest.

b. Increased incidences of mortaility from lead shot poisoning and botulism. Due to low water levels, geese died of lead poisoning at the Carlos Avery Wildlife Management Area and the Sherburne National Wildlife Refuge in 1976; Botulism killed ducks in the Twin Cities.

2. Indirect effects --

a. Waterfowl productivity expected to decline in 1977. Due to anticipated low water levels in western Minnesota this coming spring, the number of waterfowl breeding in the state is expected

to be down. Since 40 to 60% of the ducks taken by hunters each fall are raised in the state, this could impact on hunting opportunity next fall.

b. Canadian drought. This is expected to adversely effect waterfowl production there in 1977 with a corresponding reduction in the fall flight into Minnesota.

Forest Wildlife

1. Direct effects --

a. Beaver. 1977 winter trapping season was closed.

b. Increased overwinter deer survival. Curtailed hunting season in 1976 added to carryover of animals through winter.

c. Changes in deer habits. Lack of water could have forced deer to leave traditional home ranges and into more marginal habitat thus making them more suspectable to predation.

d. Low mortality from fires. There is little evidence to suggest that any significant deer mortality resulted from fires last fall.

2. Indirect effects --

a. Fires created deer and ruffed grouse habitat. Many of the fires last fall had a beneficial impact on deer and ruffed grouse habitat -- fires created good habitat.

b. Higher browse nutrient content. Dry weather has apparently resulted in deer browse having a high nutrient content than normal (probably as a result of less leaching of nutrients from little rain). But the total amount of forage is down.

The 1976 drought affected the fisheries resource as follows: In about 270 lakes, fish populations were lost due to winter kill. These

are shallow lakes and therefore marginal for fisheries. In addition to rough fish, walleyes, northerns, bass and panfish were killed.

The winter's fish kill was a result of shallow water and a deep freeze (up to four feet).

Because of lack of snow, there was less runoff and much of the water went directly into the dry soil this spring so lakes with a lowered water level will not repopulate themselves as quickly. River and stream levels were lowered.

Northern Pike reproduction will be very poor this year because the natural northern pike spawning areas have in many places dried up.

Although walleye runs in streams were curtailed this spring because of low water, our fisheries crews worked harder than usual and did succeed in getting almost 500 million eggs which is sufficient for normal propagation efforts.

Low water wiped out walleye reproduction on Rainy Lake.

Low flows in streams and rivers will concentrate pollutants and will increase pollution problems.

As a result of the experineces during the severe fire situation last year a very intensive level of wildfire protection has been developed by our Department of Natural Resources on 22.8 million acres which includes 16 million acres of commercial forest land. Communications and fire management procedures have been improved, personnel training continues, and equipment is lined up so that it can be mobilized on short notice. Coordinated efforts are spear-headed by a Department Fire Control Center.

With improved fire suppression and prevention methods being highly effective in reducing the number of fires and acres burned during any

given year we need to consider not only the short term effects but also the long term effects of such programs on fish and wildlife. The effect of the lack of fires on the development of ecosystems presents many new problems that have not been adequately researched. The ecological effects of the exclusion of fire from the ecosystems should be investigated to include vegetational development, fire potential, forest pathology, soil development and fish and wildlife.

Table I
Drought Related Losses Sustained in the Minnesota
Fish Management Program in 1976

1.	Reestablishment of game fish populations in 50 of the 280 lakes that experienced winterkill because of low water during the winter of 1976-77.	$ 50,000
2.	Extra expense involved with obtaining walleye eggs at new locations for the 1978 propagation program because of low water and low flows in the water courses at the established spawn taking stations.	15,000
3.	Cost of restocking stream trout populations in streams of the North Shore of the Lake Superior watershed where low flows caused streams to freeze to the bottom over winter with resultant loss of fish populations.	30,000
4.	Loss of entire spring-run chinook salmon stock at Spire Valley rearing station because of unseasonably hot weather and lack of transportation. Trucks were transferred to fire fighting duty.	39,000
5.	Salaries of permanent personnel on fire fighting.	16,000
	TOTAL	$150,000

Table II
Drought Related Costs for 1976 Minnesota
Wildlife Management Program

Permanent Salaries - Time spent by permanent wildlife personnel fighting fires.	$ 17,305
Temporary Personnel Salaries - Time spent by hourly and seasonal wildlife personnel fighting fires.	16,683
Payments to local units of government for fighting fires on Wildlife Management Areas.	1,100
Value of wildlife management equipment used for fire fighting and unavailable for wildlife management purposes (based on Minnesota Department of Natural Resources Operational Order No. 46 which establishes equipment rental rates).	20,410
Habitat development needed because of drought (Impoundments and deep ponds constructed primarily for big game in northeastern Minnesota).	4,500
Loss of hunting and trapping license revenue because of season restrictions imposed during critical forest fire period.	908,750
Loss of Pittman-Robertson funds due to reduced number of license buyers.	189,000
Total financial impact of drought on Minnesota's 1976 Wildlife Management Program.	$ 1,157,748

Table III
Drought Related Costs Projected for 1977 Minnesota
Wildlife Management Program

Salaries for fire fighting	
Permanent wildlife personnel	$ 21,000
Temporary wildlife personnel	28,000
Anticipated payments to local units of government for fighting fires on Wildlife Management Areas	1,500
Costs of monitoring the condition of wildlife (primarily beaver) during drought and costs of controlling wildlife damages resulting from excessive populations due to season restrictions	14,000
Equipment needed to manage wildlife habitat during drought (2 - Crisafulli pumps and power units for flooding wetlands which dried excessively)	36,000
Equipment needed for fighting fires	
54 slip on fire fighting units for Section of Wildlife pickups	24,300
Value of other wildlife equipment expected to be used for fighting fires	20,050
Waterfowl habitat management needed because of drought (includes pothole development, water control structures, earth moving)	49,700
Total expected financial impact of drought on Minnesota's 1977 Wildlife Management Program	$194,550

PANEL DISCUSSION - Continued
1977 DROUGHT PLANS - SURFACE DIVERSION PROGRAM
Charles Harris, Michigan, for John Keener, Wisconsin

The issuance of the Governor's Executive Order #35 on July 12, 1976 established an emergency diversion permit procedure. The Department was allowed to issue 30-day irrigation permits within 48 hours of receipt of application compared to a normal processing time of up to six months for a permanent permit. Two hundred and thirty-two emergency permits for irrigation from surface waters were issued within the 30 days following the Executive Order. An additional 17 permits were issued during a 30-day extension authorized by the Legislature in Chap. 432, Laws of 1975. Because of inadequacies in this method of operation and a Supreme Court decision (Omernick vs. DNR), I have initiated several activities to enable the Department to better cope with this problem during the agricultural growing season of 1977.

On January 18, 1977, I appointed a Task Force on Irrigation from Surface Waters to study the present irrigation permit procedure and define and recommend any necessary changes in legislation, administrative procedure and institutional arrangements to make the State government more responsive to agricultural needs while still ensuring adequate protection for our lakes and streams. On February 12, 1977, a letter was sent to 113 applicants awaiting permits informing them that new permits could not be granted if there would be an adverse impact on existing water users who would not consent to the proposed diversion. Statewide publicity resulted. Continuing information and training programs in response to the increased concern about irrigation are being developed by the Bureau of Water Regulation and Zoning and the Bureau of Information and Education.

Finally, on February 24, 1977, I sent a letter to members of the Assembly Committee on Environmental Protection that provided an overview of Wisconsin's groundwater situation and a listing of recommendations that the State may take to meet the groundwater needs of Wisconsin.

1977 DROUGHT PLANS - EMERGENCY WATER HAULING

From discussion in December of 1976 between the Department, the Division of Emergency Government, and the DEG Area Director for Iron County, plans were made for DNR water tankers to be made available for use by county or municipal authorizies in northern Wisconsin to haul water in emergency situations. In addition, the DNR agreed to prepare a fact sheet advising local governmental units of the best way to flush out tankers and to properly treat them to haul potable water. A copy of the fact sheet distributed statewide by DEG is attached.

At this time, 3 DNR water tankers are in use in Iron County hauling water.

1977 DROUGHT PLANS

WILDLIFE MANAGEMENT STOCKING PROGRAM

The Bureau of Wildlife Management is planning for the usual fall stocking of pheasants both through cooperative programs and direct PHG stocking. If the drought condition in 1977 creates an emergency situation which results in hunting season closures, the Bureau will make every effort to see that pheasants are released in areas where the harvest potential is greatest. These adjustments will be coordinated with the Game Farm Superintendent. Few major problems are anticipated because the pheasant season extends beyond the normal fire season and the stocking range covers a large enough area of the southern one-third of the state to find acceptable areas to stock. Under an unusual situation, the pheasant season will be extended.

1977 DROUGHT PLANS

TIMBER HARVEST - STATE AND COUNTY FORESTS

During the fall of 1976, the Department activiated, on all public land timber sales in the ten counties covered under the emergency closure order of September 16, restrictions as to certain hours that logging and other field operations could be conducted. The operations were permitted in the early a.m. hours before overnight precipitation evaporated. The requirement was accepted by the contractors with a minimum of complaint even though it did cause some added costs to them.

It is again planned to put into effect similar restrictions this year when conditions warrant. Logging operations will be confined by permit to certain hours of the day when the burning index dictates. This action would follow the issuance of emergency fire regulations as listed in NR 30.06.

No serious problems are anticipated in implementing these restrictions as loggers, in general, have been exposed to forest fire dangers and accept the interruptions to their work much as they do excessive rain or snow.

1977 DROUGHT PLANS - EMERGENCY HAY PROGRAM

Guidelines have been developed for emergency hay harvest from DNR properties to eligible farmers. Distribution of the guidelines was made to District Directors on March 4, 1977, with the State program to be implemented by mid-summer. A copy of the guidelines is attached.

In 1976, the Department issued 142 permits to harvest hay from 2,915 acres of state lands that yielded 73,705 bales of hay valued at $62,649.

1977 DROUGHT PLANS - FISHERIES STOCKING PROGRAM

Serious fish management problems have resulted from the reduced rainfall and severe winter temperatures this year. Many lakes have drastically reduced water levels, some because of lowering water tables and others because of reduced flows in inlet streams. Thus far this winter 43 waters have been opened for dip netting because of freezeout conditions. A large number of additional waters are known to have freezeout conditions but fish have not concentrated therefore dipnetting regulations have not been put into effect. Although total stocking needs can not be determined until the spring breakup, requests already received from fish managers call for over 50 million northern pike fry and 60 million walleye fry. Little difficulty is expected in supplying the walleye fry, however, it is not likely that the northern pike fry needs can be met since some of the waters where eggs have been taken in the past are freezeouts this year. Additional money and manpower will be needed to supply the increased stocking needs.

Because of the low stream flows it is expected that some of the marginal trout streams will not be suitable for trout stocking this spring. Stocking will be curtailed in those waters. The Conservation Congress Coldwater Committee has agreed that trout not stocked because low flow conditions can be stocked in the Great Lakes this year. Stocking will be resumed in those streams in future years when flows return to normal.

1977 DROUGHT PLANS - FIRE CONTROL

Plans for the 1977 fire season are based upon continuation of moisture deficiencies statewide. Any lessening of the effects caused by below normal precipitation in 1976, and thus far in 1977 will not lessen fire hazards during the first six months of 1977. A considerably harder fire suppression season is expected this year due to the dry condition of the subsoil with peat and duff layers holding fire much longer than is normal with spring fires. The Department can expect to expend more money this year than in what would be considered the average year.

The continuation of the dry weather patterns and resulting potential for high forest fire risk deems it essential that the Department be able to put into effect quickly a ban to limit specific outdoor activities such as fishing, hunting and recreation not confined to developed areas - similar to the ban of 1976 that was based upon a county-by-county basis. It is hoped NR 30.06 - Emergency Use Regulations will be implemented as soon as possible.

The Bureau of Information & Education is developing materials to inform the public of safety steps necessary to cope with a fire danger and the media of fire conditions when they exist. District Public Information Officers will cooperate with the Madison Bureau of Information & Education. Fire planning activities at the Area and District levels are complete for this spring. Private equipment operators have been inventoried as to their availability to back up our program if needed. "No Burning" signs are stockpiled statewide if emergency fire regulations are put into effect.

Four new "John Deere" units are to be ready for this spring. In addtion, the unit at the Southern Unit, KMSF, has had water tanks and pump installed to increase the fire control capability in this heavily used area. Also, pending budget approval, 15 new trucks, trailers and tractors will be purchased and put into operation during 1977-78.

Russell Stuart, Director
North Dakota

First a little background. North Dakota is definitely a prairie state, more so than any of the 50 states. We are on the verge of a drought every day and every year, just due to the fact that our rainfall is such that this is the situation. The rainfall averages from west to east between 14-15 inches up to 19-20 on the eastern border. As far as we are concerned, there is ordinarily very little fall moisture; beginning late July, into August, September, October, and perhaps up until Christmas when we start getting some snow, the precipitation is perhaps less than a total of 2 inches. So we do have a fire hazard situation every year.

One other thing that I wanted to bring out now was that in the western part of the state, we have the largest bloc of federally owned lands in the entire state. We have about 1.1 million acres of natural grasslands administered by the United States Forest Service. This is strictly rangeland, and of course their Forest Service is doing a better job of range management than a private land operator, with a result that some of the huntable species that we have occur in the greatest numbers in this particular area.

Another thing I want to bring out is that since 1961 we have had normal or above normal precipitation for 16 years with a result that farmers along with other people have very short memories. And coupled with that, about 1973 there was a tremendous jump in the price or value of cereal grains. For example spring wheat jumped to about $2 a bushel to $5. Germ wheat went up $58. This resulted in a tremendous amount of grasslands being broken up and put into cereal grains.

Now one other fact is that North Dakota is a cereal grain producer and cattle producer, and many of these people have a cattle operation as well as small grain. And the thing they didn't take into consideration when they started breaking up a quarter section or half section of additional grasslands, is that they still retained about the same size cow herd. The result is that they were just putting more stress on the grasslands. And whether or not we had a drought, we were headed for disaster anyway just by overgrazing and abuse of our grasslands. But the drought started in southeastern North Dakota last year. South Dakota was really hard hit, and it was progressively less severe as it headed into North Dakota. Another thing that you have to consider is that this can get so involved in politics, and it has become the habit in North Dakota, and I am sure in other states, that whenever there is some sort of unusual weather conditions of some sort or something else, they immediately go to the Congress and the President to declare a disaster area. This has a lot of advantages. You can get cheaper money and interest rates. And you put the squeeze on the Fish and Wildlife Service to open their refuges and small wetlands to haying-forget about the wildlife. If we got a disaster, the only thing we can think about

is this white-faced cow out here. So it gets very involved.

Now, I hope I'm not going to repeat too much of what has already been said, but I have divided it into indirect effects on wildlife and the direct impacts, and I will end up with a little bit on the impacts on me. As I mentioned already, the minute there is a drought or even a long-term forecast of one, the pressure is on the Governor and Congressional people to get a disaster area so that we can really get after the Fish and Wildlife Service, and the Game and Fish Department that tries to manage this area properly, and that does have some forage on it. One more spot is the highway right-of-way. So naturally they are going to zero in on this. And they can't understand why it is nice to have cover of certain legumes and certain perennial grasses to stand up that high that somebody isn't harvesting. They can't get it through their head that anybody would waste a resource like that. This is a good place for ducks, pheasants, and grouse to nest.

So the pressure is on real early this year starting with the Fish and Wildlife Service and the Game and Fish Department to open areas to haying. We keep track of this because some parts of the state are a disaster area every year. But the surprising thing when you start checking people that you let in to mow hay, and we charge them a very reasonable rate on a per ton basis; last year we did some of it and were really going to help this fellow out. Well we traced a little bit of it, and we found out that hay was fed to livestock in South Dakota at about $60 a ton on the field. So you go to the Governor to verify the situation--nevertheless we got to go along with it.

The same is true where we have been working with the Highway Department and they have been very cooperative not only in delayed mowing but on some segments of interstate highways they have actually made an agreement with us that they will not mow anything but the shoulder. And the Fish and Wildlife Service at the Northern Prairie Research Center has been doing some nesting studies on that, and the productivity of waterfowl in particular has been dramatic. I don't have any figures; Harvey is very well acquainted with this. But especially the productivity even this year of mallards was exceptionally high. The nesting success was considerably higher than the normal in any other area of the state. I am an appointee of the Governor, so a lot of the time I have to go along with things that I don't necessarily like. Anyhow, the Highway Department gets this pressure, so they in turn say, "Well Russ, can you relax a little bit-there is a segment out here where we are really getting pressure to cut for hay." And I say, "Yeah, Walt, if you will hold off until July 15, the nesting will be pretty well over by that time; let them go ahead." Nobody outside of the Fish and Wildlife Service and the Game and Fish Department every give one thought to what happens to wildlife during the drought situation.

Keep in mind that we have a lot of small lands in North Dakota that are now drylands, but we have very few natural lakes that support fisheries. They are too shallow. We have a 36-40 inch ice cover on them in the wintertime with the result that we have a lot of winter fish kill. But over the last 20 years we have been building a group of recreational

reservoirs that have the depth to maintain a fishery pretty well. In the eastern part of the state last summer, several of the municipalities that were dependent on their own reservoirs built 25-30 years ago for their municipal water supply; because the stream had dried up, there was no recharge and they were in dire straights for municipal water. Naturally they looked somewhere else where there was water stored, and lo and behold there would be one of these little fishery reservoirs. So the pressure would be on us to open it up and let the water go downstream. In particular, in a town of about 3,000 population they were putting the pressure on us. This reservoir that we had happened to be in the next county. And the two county seat towns are at odds over everything--Basketball and what have you-they were really at each other. So I was at a very enviable position. We were going to have a meeting here at the town of Findley, and the town needed water from Mayville which was downstream. I got up there an hour before this meeting and said, "You fellows feel that you don't need to help the little city of Mayville over there." They said no. The upshot was that we would resist any attempt to open up and let this water go downstream. If they wanted water, we would let them have it, but they would have to haul it in tankers. They agreed. But they went to a big trucking firm and started contracting with them to start hauling enough water to keep them going over the winter. It was going to cost them $86,000 just to haul water. This put quite a strain on that budget, but anyhow we suggested that maybe they should go back and see how many upright citizens are still watering their lawns and how many car washes are still functioning. Consider their problem and cut out some nonessential things. I don't know how they managed, but they did get through and we had some rain this year, so that pressure is off. We had two or three of these incidences last year. If you got a reservoir that is prone to winterkill anyhow and you suck anther two feet off the top, well you can just about write a ticket on it.

Now when we get into direct impacts of course-anytime you remove the cover that is so important up there in the northern latitude with a very severe winter, you have to consider this. Every species that we have up there is under stress for a certain period of time because of winter conditions. It varies from year to year depending on the depth of the snow and the prolonged low temperatures. Anytime that you have removed winter cover either for upland birds or deer, keep in mind that we are a prairie state but we do have a considerable number of deer on the prairie. And I will defy you to go out on some prairies to find any vegetation any higher than that. They are actually consistent in buckbrush and sweet clover fields, dried up wetlands, and so forth. This is their winter habitat. You start removing any of that and you are putting greater stress on the deer during that particular period and you are going to have either a loss from blizzard and the physical dying of deer because they had no cover to get in, or a malnutrition situation which results in the loss of the mature animals or reduced productivity the next year. Winter food, especially for an exotic such as pheasant, is highly important and whenever that is reduced, we can expect heavier than normal losses. This is perhaps important to you people down the flyways because North Dakota is a large producer of waterfowl. With the many dried up wetlands that we have-they are just making the brood run

right now, but we could be at least 40-50 percent below normal production this year because of the drought situation in waterfowl, and this is primarily teal, mallard, pin-tail and gadwall. And if we have the normal weather, we are going to have much greater than normal fish kill. This again presents problems.

Dave mentioned it-we are confident enough that we will get the northern pike and walleye eggs that we need, but we do have to change our operations. In other words, if an area is dried up or something like that, we perhaps have to move to one of the major reservoirs and find a new spot where we can do the spawning which upsets things and makes it a little more difficult. One more thing I wanted to mention-it is rather laughable to see Frank Splendoria from the Corps here. But early last spring there were some fellas that had some dollar signs in their eyes, and they got the bright idea because Garrison Reservoir is about 10-12 feet below a year ago, which exposed some rather wide expanses of mud flats-but you know, it's quality farmland. Somebody got the idea that if they get the Corps and the Game and Fish Department to have some of this under license, we could plow this up and put it into sunflowers and have a good cash crop right now. It's a lot better than wheat. So the pressure was on and the Governor called some of the Corps people, and the Fish and Wildlife gave them fishing. We decided to go ahead with that. But this was an emergency situation, so it seemed logical to confine it to forage producing crops. Well the Governor couldn't see a thing wrong with that. So we wrote the ticket. As far as our lands were concerned, you could plant piper sedan or millet. So we got a nice press release on that and everybody cooperated. And you probably got a nice letter from the Governor telling you what a nice job you did. So we told them they could use the little segment of shoreline, and put in either millet or...and as far as we are concerned, you are going to have to leave a third of it. Eventually the reservoir is going to come up, and if you are raising sedan grass, that's the best pike spawning habitat you can get. So we figured we would make a plus out of this. Well, unfortunately we only had one sucker bid on it, and I don't know what he is producing on that. I haven't had a chance to get up there yet. The Corps had nine bids total. And this reservoir was 200 miles long, so there was a whale of a lot of this. But it just shows that when you try to take the profit out of it, the interest drops considerably.

Now when you get into the effects on hunting seasons, that's when it really began to affect me. Five or six years ago, the Legislature passed a law that said in the event of extreme fire hazard, the Governor has the authority to close the season on relatively short notice. In other words, just going to the news media, and getting it out on radio and TV, and the next day in the paper, then he can close the season. At the same time, he can open theseason if the climatic condition changes. Well, we were aware of this last August, so I went to my I & E people and I told them to keep track of every fire that they could possibly find out about, by either calling the county fire marshall's office, or reading the papers to see if a farmer had a fire with his combine or haybaler-two good pieces of equipment to start fires. On top of that, about 50 percent of our farmers are maniacs. They love to see stuff burn; if you don't believe me come up to the central part of the state

about mid-September and October, and watch them burn off the dry potholes. It has to be because they never make any use of this particular land but they burn that stuff off and apparently from the aesthetic point of view, it is a lot better to look at that black expanse than it is to have some cattails, and so forth.

Anyhow we started keeping tract of the fires, and--incidentally our first seasons open on Labor Day. We have the antelope bow and deer bow seasons that open then. The kids are going back to school, and they at least get in this long weekend of bow-hunting. Then the weather bureau started something new up there. Apparently they had been talking to somebody from the weather bureau in Michigan or Minnesota and decided the thing to do was forecast 24 hours in advance the fire hazard situation. So starting the last week in August, they came out the next day at 11:00 saying it was going to be an extreme fire hazard over the western two-thirds of the state, or maybe over the entire state. So they were really reconditioning these people that you had to be careful.

So the bow season was opening Saturday morning. And about 11:00 Friday morning I had a delegation of about 20 farmers and they were already mad because we were going to tell them to go to hell. Anyhow, I listened to them and told them, "Gee fellas, this is an annual thing, nothing to be concerned about. But the seasons open tomorrow, and we have got guests coming from out of state that like to bow hunt and it puts a bind on them. They drive a thousand miles to spend 4 or 5 days bowhunting. If you knock them out of a season, it makes them pretty irate, and I don't blame them." So when they left me, they apparently went to the major TV station in town and informed them that they were headed for the Governor's office and they did. But rather than getting inside, because the office is small, they got the Governor outside of the capitol and got the TV camera all cranked up; and of course this was the first time every one of these boys had been on TV so they were upstaging each other. The Governor called afterwards and said that we have got to do somthing. So I said that we shouldn't go hog wild because these fellas are from the southern part of the state. Let's cut the state in half and let them hunt north of there and close the south, which we did. Keep in mind too that the Governor is running for reelection. That makes it a bad situation which happens only every four years, and my hair gets a little grayer every four years because of that. I said to the Governor that he was in a spot-whatever he did he would be a loser. So if he has to put these changes in effect, put the blame on me. But I said let's be reasonable about it. He thought that was real good. So it started out that way.

But there was an old rancher that died out in the western part of the state, and his funeral was on a Saturday afternoon. He had been in the State Legislature, so the Governor had to go out to the funeral. I happened to be out there too about 20 miles away, but I didn't go to the funeral. Anyhow these ranchers out there really got on him and told him if he closed part of the area he better do something about it. So he took it upon himself to close the season at 3:00 Sunday afternoon. So we started getting phone calls, and I said I couldn't go along with that. If he had waited until Monday morning, everything would have been

fine because this is reasonable. But guys are out there hunting and they are three or four miles away from the nearest radio so they aren't going to know anything about it. So this was the way the thing was planned.

Well, everything was going good and we were keeping tract of fires and running a weekly newsletter on how many fires had started, and pinpointed that they had been started by a combine on such-and-such a farm, or haybaler or seismograph crews. Not one fire had been started by hunters. Okay, as I mentioned, our sharp-tailed grouse season opens about the middle of September and we do have a lot of nonresidents come in primarily for sharp-tail hunting. They go to the western part of the state. So we had gotten down to being open until 12:00 noon, but our duck season was going to open on October 2. So I went to the Governor and said this was a good time to throw the damm thing wide open because the pressure will be on waterfowl. Everybody but about a dozen went waterfowl hunting.

But lo and behold, about 1:30, and keep in mind this is the first day, a fire started in this ranchland. It was an extreme fire hazard situation with the humidity about 14 percent and the temperature about 86° and southerly winds about 25-30 mph. And coupled with that were a group of people who were not used to fighting prairie fires. They hadn't had a real good prairie fire out there since I was a kid, and all the old fire-fighting techniques had gone by the board. We didn't know how to fight a prairie fire anymore--as a result it burned over about 6,000-7,000 acres. And again the media got in this the minute they heard there was a fire. They jumped in the plane and took their videotape camera out there. There were about five of these rural volunteer fire departments and they set up a headquarters in a steel quonset building on a ranch and the first thing they made sure of was that they had plenty of refreshments. I think this was donated by the local bars, but there was case after case of beer and liquor and so forth. So this was doled out to these firefighters with the result that if there had been somebody in charge, they could have reduced the acreage burned by more than half. And then about that time the TV crew got out there. These guys had been fighting little fires and they had a little soot on them and a little booze in them, so they could really tell the TV crew what really went on. And naturally a hunter started it. Hundreds of cattle and pickups and everything burned up.

Monday morning I sent the boys out with the aircraft to fly it just to see what it was. Keep in mind when we are surveying something and looking we get right down on the deck with the small plane. If we have to fly 4 feet off the ground to do it, we do it. And the only thing those guys saw going back and forth on that 6,000 acres is that they found one dead cottontail. The cattle that were supposed to have been burned up were down in a nice green draw that had somehow escaped the fire. There was no sign of a deer or antelope or anything like that. Anyhow these created problems with seasons from then on out until we got snow about October 20. Then they forgot about it until the Legislature went into session. As a result we had several bills introduced that would really curtail hunting. But one thing that did come out of that--

the Governor, through the Attorney General, demanded an investigation into the cause of the fire. And he spent about a week out there, and he had to come back and honestly report that the cause was still unknown. Of course that does not convince those people out there that it was not set by a hunter. Out of some hundred fires that we recorded last year that burned from a few acres to 7,000 acres--we had one that was set by a party from Minnesota, pardon me Dave. The poor guy was going up to one of these waterfowl production areas to a little duck hunting. On the way he hit a little sandy spot and bogged his car down. And he spun the tires a little bit too much and set the vegetation on fire. So it burned up the truck and the wetland area but didn't hunt any private land at all. It was probably good fire ecology actually. Anyhow these guys got a ride with a farmer into town and rented a small plane and then another plane to fly into Minneapolis. But one of them was an attorney in this party and a couple weeks later I get a letter from him wanting to know if he couldn't get the money for his license refunded inasmuch as he didn't get a chance to hunt. I wrote back and told him, "Yeah you can but you have to come to North Dakota to pick it up because I want to throw the book at you." Anyhow, that's the way it went.

The thing that is so apparent in North Dakota is that we have a situation wherein the private landowner is more and more resentful of the hunter. So any excuse he can use...now he can post his land and deny trespass access, but he wants an agency to do it. And so this fire hazard has been used to a great extent to get the season closed, not because of worry about fires, but rather this removes all responsibility from them to deny the guy trespass. So it is real hard to determine if they think they really have a fire hazard or can they get the Governor to close the season and get away from all this trouble.

Jim Johnson
Nebraska

I will deal with just the fisheries aspect of the drought problem here in Nebraska. We had some waterfowl and deer problems, and we put in for some drought disaster relief money for waterfowl and marsh improvements and this sort of thing. For the sake of expediency, I will try to deal with what I know most about, and that would be the fishery problems as a result of the drought here.

According to our climatologists, the drought began officially in 1973 in Nebraska when we had some erratic months of wet and dry cycles, and it hit early in 1974. Since 1974 in Lincoln, for example, it fell behind by about 21 inches in rainfall up until the first of 1977 and it has fallen further behind this year. That's little over a three-year period then. Nebraska is sort of a hard state to understand in that it spans a wide variety of climates. In the southeast part of the state, we get about 30-31 inches of rain. In the Panhandle section of the state, rainfall dropped down to about 17-18 inches. The only uniform thing about this state is that the whole state was hit by the drought. All areas have been affected and it has gone on for about three years. Our rainfall was about 69 percent of normal statewide in 1974, and about 92 percent of normal in 1975, and it dropped back down to 76 percent of normal in 1976. During the month of June in 1977, many counties in the state recorded the driest June in the history of the state. Lincoln only got .64 inches of rain when we normally get 5 1/2 inches. So it looks like we are into another year of drought. And I think the last three years pretty well set us up for a real hard time this coming year. I think if you were to project this drought into 1978, we would start to lose some major reservoirs. We have lost some relatively minor standing waters. We have lost major streams in the last two years and we are currently losing some of our best catfishery in the eastern part of the state this year--these are outright losses; these streams are dry. If you project this existing drought on into next year, I think our losses will begin to take on quite an economic significance.

We have been hit, I think, in three major areas--hatcheries; our standing water situations such as reservoirs, impoundments and natural lakes; and our streams. Our streams have been the hardest hit; the hatcheries have registered some difficulty this last year. We have had reduced flows in three of our four hatcheries. Mostly our coldwater rearing stations and hatcheries are hurt, but because of decreased rain flow and warming water temperatures, there isn't a whole lot we can do about that. Nebraska has a relatively small budget and small hatcheries, and to lose one of them is a major problem. The only thing we can do to meet the problem is put in for disaster relief funds and augment our existing natural flows with well water. We put in for some deep wells at these three hatcheries that were affected. And I think we will probably get the funds; its unclear right now but it should amount to about $78,000.

It looks like the only other thing we can do at this point in time is just project downward our production goals for the next couple or three years. And it is not altogether clear whether there is any relief in sight because in the western part of the state, it looks as if groundwater withdrawals for irrigation purposes may be exceeding what you could expect for recharging even in wet years. So it is questionable whether we will have any relief for our coldwater hatcheries. It looks as if we go to well water systems, we may be able to guarantee flow, but at much greater expense. So we may be pumping water instead of getting gravity flow in the future, and this could go on indefinitely.

This is one aspect of the drought that has complicated things in Nebraska. At the same time that the drought struck, we had been and still are increasing the development of irrigation in this state tremendously. And it is very difficult to cope with the problem and deciding what's causing water decline whether it's water table and whether the water is being lowered from irrigation or just from dry years or whether it is direct withdrawal from streams. It's very hard to get a handle on it and not being a hydrologist, I can't even begin to approach the problem. From what I can see, the hydrologists are a little afraid to touch it. There is just very little known about this state right now as far as it's water table is concerned, and how much irrigation it can sustain. We have a very good ground water situation in Nebraska. Municipalities haven't been affected by the drought at all. However, this could be a projected problem, and could arise in the future.

Getting into the lakes and reservoirs, we have 222 sandhills lakes, some of which you are familiar with because a lot of northern pike egg production comes out of these lakes. We supply a number of the midwest areas with northern pike eggs. We take about 25 million eggs a year from these lakes, and most of the production comes out of the Valentine refuge in the northcentral part of the state. We also have about 200 public impoundments that are sustaining good fisheries at the time. These range from about 10 or 20 acre impoundments up to about 900 acres in size. And then we have about 15 major reservoirs that provide most of the economic value to our fisheries. These are high quality reservoirs that are well developed with good public access and good walleye fisheries, white bass, some northern, and various other species; some of them are good largemouth reservoirs. So these 15 reservoirs are probably as important as all the other lakes put together. We also have between 10,000-15,000 miles of streams that are of primary sport fishing value. Just to familiarize you with some of the resources that we have as far as manpower goes, we have about 17 management people to handle this. So we haven't been able to get real accurate figures on what we have lost and what the economic values would be. What we have done is try to document what has happened. So the reason I have slides here is to show what we have been doing for the last year, trying to present to the public, the Legislature, and various interest groups what's happening, and what we project the situation to be.

We are a little short on statistics-everybody here is, it seems. Hydrologists, fisheries people, and everybody is wondering what this drought is going

to mean to us. What we have really been able to do is show what has happened so far. So if I could have the slides, this is a very brief presentation of what we have been utilizing statewide-sort of an informational program we have been presenting. To begin with the lakes and reservoirs--this is a high altitude photo of the northern sandhills area indicating the number of sandhills lakes we have. Most aren't of value to fishery production, but this group of lakes here at the Valentine refuge are mostly northern pike producing waters. Usually all the eggs in the state are taken from those lakes. This is a closer photo-there are highly marshy margins on the edges of the lakes and this is northern pike spawning habit in most cases there. You can see that these are water table lakes in very sandy terrain with large amounts of northern pike spawning habitat. As I said, we take 25 million eggs from these lakes every year. We could take more, but they easily meet our demands for egg production. We usually get our 25 million in 5-10 days of trap netting. This is an example of the sort of habitat these lakes offer.

This is not a sandhill lake but a gravel pit lake, but in 1973 was the first time I saw this sort of thing. In 1974 and 1975, and finally this spring (about February of 1976), the sandhills are beginning to look like this. Most of the spawning habitat was lost. I don't know how there managed to be a lot of this so easily but we had a very wet period in April and May; the water levels did come back and we had an excellent spawn this spring. But this particular lake winter-killed in about February. We lost in the vicinity of around 25 lakes. We expected to lose most of the lakes--somewhere in the hundreds. But we didn't get any snow last winter. So in a way that was beneficial. We needed the snow to recharge the streams and lakes, but if we had got the snow, we would have suffered winter kills. We got virtually no snow on the ice last winter, and as a result we had a good northern pike population that managed to live in about 18-20 inches of water. At Pelican Lake, for example, we had about 50-60 pounds an acre of northern in that lake. It overwintered real well in less than two feet of water.

Now in the reservoirs, these are the real economic resources as far as fishing goes in the state. They range from two resrvoirs--Gavins Point and Lake McConaughy which are about 30,000 acres--down to some that are about 900 to 1,000 acres, and these are primarily walleye lakes. So far we haven't sustained too many losses in these reservoirs. We have a system of about 11 impoundments around Lincoln. These 30 to 300 acre impoundments are pretty common throughout the state. Most of them were built for flood control purposes and these are fairly important. We sustained a few losses in these types of reservoirs. But as I mentioned earlier, in these cases, it will probably take another year of drought before we start to suffer any real losses to these types of reservoirs. But these are not water table reservoirs-strictly run-off. Without run-off, they just gradually dry up. But this is an example of Swanson Reservoir in the southwest part of the state that has been short on rainfall for about three years. This lake is normally around 5,000 acres, and it was drawn down to about 1,000 last October. This was taken October of 1976. This is one of our best walleye reservoirs. We have three reservoirs that I would have to rate as being top notch and this is

one of them. The population of walleye in the lake was probably sustained by rock riprap at the dam base. With most of that out of the water, I imagine we didn't get a very good spawn this spring. It's hard to assess how these drawdown conditions affect the fisheries in these reservoirs. Obviously you are going to have stress factors under the ice through the winter months. This reservoir did not come up very much this spring--not much higher than this right now. So it is a little hard to project what's going to happen in these lakes.

Box Butte Reservoir is about 900 acres normally. The water line normally makes it up to about this point; it was drawn down last October to about 40 acres. And that was a good northern reservoir primarily; and somehow miraculously it still has a good fishery. One response we have had is that the refuge system in Nebraska is taken to the drought. In fact this was planned long before the drought, and the drought played into their hands as they have plans to eliminate carp from most of the refuge lakes in the state. We have two major refuges. The plan calls for pulling the lakes down and treating the remaining water. With drawdown of the lakes, it is possible to get complete kills. We have used this technique on a couple of our lakes. This is sort of what the set-up looks like. This a 16 inch (inaudible) pump. You just about have to dredge a channel for water to get into the pump.

Another response that all the northcentral states have been into. We used the helixor system at Smith Lake; I think most of the work was done in Minnesota with the initial experimentation of helixors. We installed one system in the Panhandle in a lake about 8 feet deep. In deeper water the helixor is not a bad idea, but in many of our lakes we don't have 8 feet of water. This system worked very well. You can see last winter we had very little snow cover. At any rate, it illustrates that this system will open a big piece of water. We had two helixor systems out there, and this system cost about $3,200 plus utilities.

On our smaller lakes, we have aeration systems of a different sort, but essentially the idea is the same. In lakes of about 8 feet or less, they put in these systems with a good deal of regularity. In the sandhill lakes when you only have 5 or 6 feet of water, the helixor just won't cut it; they require at least 7 or 8 feet of water to work in. This system spirals the air bubbles in the water around so it has an adequate chance to mix before releasing it to the water surface. You get an excellent mix of oxygen. But in shallow lakes, you just don't have room for this type of system. So we have just been using hoses, and drilled holes in the sandhills lakes. It is about all you can do in a drought situation. You can see that these lakes would have winter killed without the aeration system with the hose.

We have about 20,000 ponds in this state. They are privately owned and have the capability of producing fish. We have been trying to develop a screening system for finding out which of these pond mills actually work and which ones don't, and try to give recommendations to the landowners to reduce winter kills on private ponds. We found two pond mills that work real well and we came up with a small publication to provide to

landowners. The spread of pond mills in the state has been pretty rapid in the last couple years, and I think these would save a large number of the small farm ponds from winter kill.

When it comes to streams, they are the hardest hit, and we have two types of streams in the state--coldwater and warmwater. We have a fair number of cold-water streams, but none of these were severely affected by the drought in particular these last couple of years. We have lost a few over the years, but none that you could really relate to this drought. These are mostly water table streams that come out of the sandhills region. The water table there is very stable, and we haven't seen any effect on the sandhills water table by the drought. The reason we seem to be losing the sandhill lakes is that those are apparently perched above the water table by organic deposits, and they aren't really water table lakes. They are fed by the water table apparently only during very wet years; you get run-off over that sand and the water table reaches the surface. In between periods of wet years, those sandhill lakes represent only perched water sitting above the table. In the 1930's most of the sandhill lakes dried up. But in the eastern and central parts of the state, we have some very important catfishery in quite a wide variety of streams ranging from the Nemaha system in the southeast here. These are relatively small streams but highly productive, and probably some of our best catfisheries. To the Niobrara and Platte system which are large graded sandy channeled streams. These are the streams that have been most severely affected. As I mentioned earlier, we can't really ascertain the extent of the effect of the drought and the effect of direct withdrawal from pumping. It is difficult to determine which is causing the most damage to us. This is the little Nemaha River here just east of Lincoln. This river was pumped practically dry, and I think we can contribute it directly to pumping. When the Department of Water Resources finally decided to shut down some pumpers because senior rights were not getting their water, we saw that without any amount of rainfall, the stream came right back up. There are so many pumpers along here--they closed down 145 pumpers two weeks ago. This stream only flows about 30 cfs in the summer months. There is no doubt in my mind that this type of irrigation withdrawal is probably the major factor influencing the flow of streams in the eastern part of the state, with some exceptions.

In the eastern sandhills region of the state, Holt and Wheeler counties, we had to cope with increased withdrawal from the water table. This is a much more difficult thing to ascertain. Ten or 15 years ago, most of the ground in those areas of the state was grassland. Now cropland is being put into production with the use of center pivot irrigation. Well development in the northcentral and northeast part of the state has increased dramatically in the last five years. And this of course is a factor in stream flows but to ascertain how much it is influencing stream flows and how much the drought is influencing stream flows we just can't tell.

The result last summer was that we did have 40 streams dry up from one cause or another. We had numerous bait minnow streams too, but these 40 streams were all sport fishing waters. The flows dropped so low that the temperatures exceeded 95 or 100 degrees and they suffered complete fish

kills. Clear Creek used to be a stream managed for cold water fishery and eventually a nursery stream for northern pike stocking. And it used to provide a pretty good fishery for northern pike in that you could stock northern in the stream and then they could migrate downstream to the Platte River as they got larger. But the Platte River now is a stream that is always dried up west of Columbus which is about 50 miles northwest of Lincoln here. But east of Columbus it has always had a pretty good flow because the Loup River joins it there. The big difference between last year and previous years was that usually when the river dries up, the sand stays wet. But last summer you could go down six feet and not find a piece of moist sand. As a result of decreased flows in the Loup River system, the Platte below where the Loup joins in is barely flowing right now. We have about 500 cfs moving through there when we normally have about 5,000 cfs. Now the Platte downstream of Columbus where the Loup River joins is an excellent catfishery with some sauger, some walleye, and a few smallmouth and largemouth bass.

And the tributary to the Platte which is used as a nursery stream for pushing northerns down into the Platte was Byron Creek, and this dried up last summer. This is a youth camp; I don't know exactly what the history of this off Byron Creek was, but it has always been a food fishery. And it summer killed. Now our response to this sort of a drought situation has been that the only thing we can really do with the manpower that we have available to us and the limited knowledge as to what is happening in this state as far as the cause of these drying conditions of streams and lakes is to document what's happening and to try to remove fish where we can. Here at the Platte when it first dried up after several years of good flows. In 1974 we salvaged 20,000 catfish out of here, and these fish were stocked in sandpit lakes adjacent to the Platte River. In addition to this we have been documenting through slides series-we did a slide program to 43 groups since October--interest groups, clubs, various organizations. This is about a 110 slide program. It illustrates which streams dried up, what they looked like, and try to explain to the people what it takes just to get a stream to come back after these dry conditions. In addition to this we have given 5-6 seminars to legislative groups and law-making bodies. I think the problem we are trying to address right now is that we have to define fish and wildlife in Nebraska as being something of worth in terms of our water laws. Currently fish and wildlife are not actually defined in our statutes as being beneficial uses of water. As a result, it is perfectly legal to pump a stream dry in Nebraska, and any fish and wildlife losses are not considered in our water statutes.

We had hopes that we could get something through the Legislature this summer since everybody's interest was attached to these streams drying up. Many landowners were more or less in our camp because we had numerous riparian rights lost--riparian rights involving livestock, watering rights and so on. When a stream dries up of course the livestock value of that stream is gone. Riparian rights are not registered as water rights as such. They are simply more or less a paid water right in Nebraska.

When the appropriation system which overlaps our riparian system allows the stream to be dried up then of course livestock interests are automatically in our camp, more or less, hoping that if we can secure flows for fish and wildlife, they will have flows for livestock watering.

Municipalities are getting quite alarmed. The Platte River provides a large aquifir in which Lincoln and Omaha both sink their wells. We were hoping we could put an alliance together with these interests groups and get something passed to at least gain some minimum flows in our streams. But I guess this is going to have to be put off until this coming Legislative session or the next. There is nothing left to salvage in the Platte any more. When it dries up, there just aren't any fish to lose any more. In the canal system we have salvaged catfish-they run about 20 to a lb. In a normal salvage out of the irrigation canal systems, we can pick out between 100,000 and 150,000 catfish stranded in the canal systems. We have had particularly good salvage operations in the fall because the streams from which this water is diverted are practically dry. And the canals provide the most flow and the most habitat for fish and they are apparently stacking up in these irrigation canals. And when they are dried down, you lose substantial numbers of fish. So we have salvaged more than the usual number of catfish, more larger fish these last couple years than we have in the past. This is about all you can do in this particular circumstance when the streams are dry.

Other areas of response to this low water situation is to provide deep wells for some of the state lakes. We have people at Walgren Lake in the Panhandle area which now is being used to augment the water supply in that lake. This is a fairly expensive option to go--a deep well costs $20,000-30,000 plus your costs of pumping the darn thing. When you are trying to maintain the water level on a 300-acre lake, it gets really expensive. Numerous private organizations, clubs and landowners and what have you have tried the same technique. We have 5 or 6 deep wells right now that are augmenting water wells and private lakes. Of course then after a wet period you try to use your crystal ball and try to determine if the water is going to come back or if this is the last year of the drought, will the irrigators get all the water or should we restock. We have done a considerable amount of restocking in the winterkill areas this spring. Fortunately it looks like we guessed right on our sandhill lakes. They have come back real well and the restocking on those lakes seems to have been beneficial. We did more or less lay off on stocking on some of the streams. Some of the northeast streams that dried up last year we did restock, mostly with northern pike.

We got fairly lucky on those, but in the southeast, some of the streams we restocked are now dry again. So I don't know what a guy is supposed to do. Obviously when a stream comes back you have to try to get in there as fast as you can and try to overcome the threat of rough fish reinvasion. You could use a dry stream as a possibility to secure an instant renovation and come up with a free treatment cost, restock it and provide an improved fishery in the long run, but you just can't tell when this drought is going to end. We have had a few successes in that regard, but for the most part it is too difficult to follow. We just had to lay off and wait and see what the weather is going to do.

Panel Discussion

VESALL: Thanks very much, Jim. Bill, we are running a little short of time. Do you want to proceed and forego the questions.

BAILEY: What we will do is delay some of these committee reports until tommorrow morning. Some of those reports are going to be extremely short. I would like to get Fred's report out of the way on the Pheasant Council before we leave here and then defer the others until tomorrow morning.

HARRIS: I forgot to mention the fire, we were fully reimbursed by the Fish and Wildlife Service for all our overhead costs in suppressing that fire and it amounted to about 3/4 of a million dollars. In addition to that the timber losses on state land due to the fire amounted to about $160,000, and we are now going to be reimbursed for that. In addition, there were a number of private planes that were paid off, the County Road Commission contributed equipment for road and bridge rebuilding. They were reimbursed for their expenses. Our expenses of $160,000 was divided between us and the National Guard and the State Police, who participated in the fire also. One other point as far as drought conditions are concerned, it set back the Fish and Wildlife service's lamprey treatment program about a year. Because of low stream flows, they couldn't get the dilution of the chemical that they needed. The water was sufficient to maintain the life of the antecedents of the sea lamprey but they couldn't treat because of low stream flow. And they are just now beginning to catch up; stream flows have improved. I wanted to hand that to the Fish and Wildlife Service for their excellent cooperation for reimbursement of the fire costs.

VESALL: Any comments.

HEMPHILL: If you guys haven't heard about your drought emergency relief fund, why, you better get on the stick, because we have heard.

VESALL: We have heard about it as I mentioned. We have made an application, but we haven't got any money yet, and we should push to extend the date.

BAILEY: May I make a comment because Harvey and I were talking about this yesterday, and I think, Harvey, you were going to get some information on the possibilities of extending that date.

NELSON: I haven't had a chance to do that but may be Jim Cooper or Jack would know more precisely what has happened. I think the question of extension would be the proper thing to do.

BAILEY: I think it is going to be absolutely necessary because time is so short now; we have been in approval process for almost two months and that has used a great deal of the time that we have had to actually get the job done.

HEMPHILL: They haven't been able to release any of the drought relief money--even the governors are getting uptight about it.

COMMENT: I talked to Harvey Willoughby this morning and we were notified yesterday as to how much money the Fish and Wildlife Service is giving

the drought assistance program which is amounting to a drop in the bucket. If that's the case I think everybody is going to be disappointed.

HEMPHILL: What concerns me is that the Bureau of Reclamation is apparently running this stuff in our area at least, and they have already heard and told us that we are getting a million bucks.

HARMON: Well they have got the lead coordination on it in terms of funding.

GOULDEN: Richard Goulden, Manitoba -- we too had a most severe fire situation in the last year, not like that recorded in North Dakota, South Dakota, and Michigan. In connection with the matter of hunter caused fires, we were under extreme pressure to close seasons like other states. We did not close hunting seasons. Instead we compiled a report of hunter-caused fires which shows that less than 3 percent of all fires caused in Manitoba this last year were caused by hunters. I think it would do us all well to share these reports back and forth because there is a standing belief among the public and politicians that when fires are caused, they are caused by hunters if it happens during the hunting seasons. The point made by my friend here from North Dakota, we were under extreme pressure to use wildlife management areas for hay and grazing which in some cases we were forced into doing, and upon documentation we found a fair amount of that hay going to both North Dakota and South Dakota as well as Saskatchewan. That has caused no small degree of concern. I would suggest that one of the things we need to do also is that when one or the other of us is closing a hunting season that we should please inform our enighbors because the closure in Minnesota of waterfowl hunting or setting back of the waterfowl season caused some overflow of hunters into Manitoba. And some forewarning of that is very helpful in dealing with the matter. The last point is that it seems we have a pretty big job to do in explaining the value of maintaining fish and wildlife and the lands necessary to sustain them. Just because there is a drought does not mean to say that the only loss due to the drought is agriculture. For sure there was a loss of fish and wildlife.

VESALL: If there are no more questions or comments or remarks. Jack?

HEMPHILL: I would like to clarify one thing on haying on the wetland area (inaudible) only those lands that are scheduled for burning are to be cut. Only those lands are open to haying and only after the production season. (inaudible)

VESALL: A dangerous precedent was established last year when game management areas were open to grazing and haying. And our state and North Dakota in some cases because they were back again this spring. The farmers union in Minnesota tried to get the wildlife areas open and the production areas into advance cutting of roadsides. I would like to thank the panel very much. We are sorry we ran over, Mr. Chairman, but there was a lot of ground to cover. Thank you very much.

BAILEY: I certainly wish we had more time here to respond a little bit

more to the subject. I am certain that each of you are having experiences right now that are similar to what has been described by the panel. Fred, if we could have your report on the Pheasant Council and liaison with them and then all the other reports listed for this morning will be deferred until tomorrow morning.

FRED PRIEWERT - Report on Pheasant Council

I will abstract this, and Keith and Russ are also familiar, particularly Keith. He probably works more closely with the group than I do, or Russ does, and I will ask him to cover any of the spots that I miss. The reports were mailed out to the directors, but a lot of you may not have received it.

The pheasant hunting trends from 13 states between 1966 and 1975 were reported and they appended that information. Four states reported downward trends; four states showed increases, and even though they are lower on the long-term averages. And five states showed no clear trend. They did some talk on I&E in cooperation with the extension service attempting to work with landowners and so on. But they ended up by making seven recommendations, and I would like to read those to you. (1) Support land diversion features of agricultural legislation similar to Section 10 of the 1973 Act.

According to Kieth Harmon, Section 10 will remain in tact if S.275 which basically amends the existing act but not Section 10, should be approved. Implementation is also important if cropland is diverted and natural resource agencies must provide specific inputs to achieve optimum value to wildlife. (2) Support the Land and Water Resources Conservation Act, H.R.75 and provide input into the wildlife resource objectives and needs section. I am going to diverge a minute. The resolution committee has covered some of these things and I think that's what they were asking for. (3) Include pheasant management needs and benefits to the extent possible in federal water bank programs planning and management. (4) Encourage changes in agricultural land use practices which benefit pheasants without significantly reducing overall farm profits: warm season grass pastures, eco-fallow, soybeans, and they list a bunch more. (5) Strengthen agency programs which offer direct on the farm technical and financial wildlife management assistance and establish clear cut priorities for this effort according to cover type and geographic areas. (6) Manage roadsides, and that has also been discussed. (7) Renew efforts to increase public awareness relating to intensive agricultural use changes and effects. I think what they are trying to say to us is that they wish the directors would take a more interest in what they are doing. I would recommend that the President drop them a note and thank them for the report or I will if you want me to. I think they should be encouraged and I think they want some direction from the directors on maybe taking a segment or two for the program, adopting it across the pheasant range, and give them the wherewithall. I think they are looking for leadership. I have abstracted the report rather briefly. I am satisfied with what they are doing; maybe they need more leadership-maybe more of us should go to the meeting. Keith, have I covered everything or would you like to add to what I have said.

HARMON: I would reemphasize what you said. I think it bothers the Council who indicated they do their thing once a year and then they get back together and try to figure out what took place in the meantime. There needs to be some new direction here and it needs to come from the administrators. For example, they refer to the Land and Water Conservation Act. It is going to be an extremely important piece of legislation and there needs to be a clearinghouse within the Council that can direct the activities such as appraisal of the land, goals, programs to develop. Another thing they indicated was change of cropping methods and types of plants would be more beneficial to pheasants. The talk that Terry McGowan gave the other day may be a good example of where you have a clearinghouse that lets out contracts to these universities for these types of research and studies. Somebody has got to direct this stuff and keep it moving. They frankly are very frustrated.

PRIEWERT: When it gets to us, it falls on deaf ears. We don't pick out the items and then give the go ahead. Give them some direction, and I think the directors have to do that. We did three of the seven suggestions they made and incorporated them in resolutions. I think that should be continued and expanded.

STUART: I would like to editorialize for about 30 seconds on this thing. I agree with you but I think we should change the name of this committee and change the direction at the same time. I think instead of calling it the Pheasant Council, we should call it the Habitat Council. And then start zeroing in on what may be done on privately owned lands to enhance upland game production. We have to put these things in perspective as state directors. Right now the pheasant is way down on the totem pole as far as importance in North Dakota whereas a few years back it was number 1. Therefore if we are really going to be effective, we have got to start going the political route through Congress and the ag program. That's the only way you will ever do anything for these ground nesting species.

JACK MERWIN: I am a newcomer, but it is my impression that the Midwest Pheasant Council has not accomplished a lot. If it takes more active participation by the directors, I would certainly encourage that. One of the important things to be worked on in that Council is I&E.

PRIEWERT: I skipped over that part, but they did spend quite a bit of time on I&E and the last part on renewed efforts to increase public awareness related to intensive agriculture use trends and its affect on wildlife habitat. That was one of their points and it brought out some of the (inaudible) I&E side but calling attention on the legal side and the legislative side.

MERWIN: Beyond the legislative end, I think there should also be a concentrated effort (inaudible). And it doesn't do much good to increase the pheasant population (inaudible).

PRIEWERT: I will try and convey these things and may get on the phone with Keith. I will try to get a letter back to them and tell them we have by resolution addressed ourselves formally to some of the things they asked.

BAILEY: May I make one suggestion on this. Just in listening to the conversation and discussion, it seems to me that there should be some type of action taken by the Association at this meeting. It appears that the Council is wondering just what their function is. Frankly I wonder at times too. If we could tomorrow under the section of old business possibly come back in for a discussion of some of the points that Fred and Russ are making to see what action the Association might wish to take. I agree totally with Fred that these people are frustrated but I think there are a number of administrators that might be a little frustrated too and wondering where we are going and what we are doing. If they are going to continue, I think they do need direction in terms of what the various states as an Association need from that particular group. What priorities should they have in conducting their meetings and their work. What do we want from them. I don't think that this has been too well defined. If it has, I'm not aware of it. I do think they need direction. I think it has grown into something beyond the original concept of the Pheasant Council. At their last meeting, I think it was a mini-conference as opposed to a council, and I for one feel quite strongly that there is some direction needed in this area. There is also a resolution coming up that will address a part of this problem and goes beyond the Pheasant Council. If we could treat some of this under old business tomorrow, then you might take action one way or the other that will provide some direction to this group. Are there any other comments on Fred's report? I think this was one of the more interesting reports in that I have been able to sit down and glean out some of the strategies to the problem. If not, let's adjourn now.

BUSINESS SESSION AND COMMITTEE REPORTS
Thursday, July 21, 1977

Water Resources Committee Report - Russ Stuart, South Dakota

I regret to say that I have no report. I have been working a little bit with the International Committee, Harvey Bray of Tennessee, but as far as the Midwest is concerned, I have no report.

Pro-Hunt Committee - Carl Noren, Missouri

BAILEY: All the representatives from Missouri on the Pro-Hunt Committee have left. Fred (Priewert), you were also on this committee.

PRIEWERT: Well, there have been some phone calls and some discussions among I&E people, Missouri's, and Carl and I; and we really haven't done a darn thing. We had a report a year ago and I don't know if anybody took any of the suggestions or not.

BAILEY: I do think the Association did have some activity in Pro-Hunt at this meeting though, in terms of the film shown by Dale and Ed. Again, they emphasized this morning that the film will be available shortly for those who might wish to buy it--at $100 a copy.

PRIEWERT: Are you going to send out a notice, Ed, when it is ready? When are we going to know.

KOZICKY: To tell you the truth, we are sitting here now if you want to order one--I'll take an order.

BAILEY: For those of you who wish to order, Ed is here to take any orders now.

Legislative Committee Report - Dave Vesall, Minnesota

VESALL: I think we will pass these reports (Appendix I) out here and then we can refer to the report. When you start pulling together legislation, sometimes it's hard to know where to stop. But, what I have done is try to follow the important pieces of legislation that are before this session of Congress. And, there are 24 bills that I have listed. The preamble of the report which I have passed out here says 23--you can change that to 24 because I added the natural diversity bill which you passed on to me. We can go over these quickly and I

will give you the position of the International Association. The first bill that we have listed is the one dealing with the Indian hunting and fishing rights. We discussed this some yesterday and committee members have been talking about the problems associated with Indian hunting and fishing among ourselves. They think this is a very important piece of legislation because this subject has to get before Congress and they have to act on it to help resolve the many problems that there are around the country. This bill would deal with the time and manner of hunting and fishing outside of Indian reservations. This is a good first step. As you know, the International also has an Indian Relations Committee, and they have been or will be getting together with some of the Congressional people. So this is a very important piece of legislation.

Surface Mining Control and Reclamation Act of 1977 - the International favors this and feels it will have a favorable impact on fish and wildlife habitat. But after hearing the representative from the Peabody Coal Company yesterday, we wonder. Anyway, the position of the international is in favor of this legislation. And we all agree that control is needed for the strip mining operations.

Now we get into the Alaska National Interest Lands Conservation Act - International has not established a position on this at this time. They have referred it to a land research committee to study it. It is a very difficult piece of legislation--lots of serious implications; and you realize that 116 million acres in Alaska would be dedicated as parks, refuges, in addition to forests and so forth. One of the concerns is that it would put too much land into national parks which would result in the restriction of hunting. Even though one of the bills dealing with Alaska lands at the present time says that there may be hunting, if it is going to be under the jurisdiction of the National Park Service, I think we can count on there not being any hunting. It would be up to them. We have had a very serious problem in Minnesota in trying to get a duck hunting area out of the new Voyageur National Park--1,000 acres or so. Hell, we can't budge the National Park Service on that.

The Land and Water Resources Conservation Act of 1977, and I refer to H.R. 75, this would require the SCS to conduct a continuing appraisal of the nation's land, water and related resources, and develop a national land and water conservation program. This is something along the same line as the National Forest Policy legislation which Humphrey and all put through previously. So this is favored. Keith Harmon pointed out yesterday that H.R. 75 had been kind of emasculated and (inaudible) 106 is the one that should be followed. You might make a note of that.

Of course the usual bills dealing with anti-trapping are in. There is one that I referred to here-H.R. 471. We have followed the polls and this is kind of a cover piece of legislation. It talks about (inaudible) traps--you couldn't move these traps between states in interstate commerce. And they couldn't be used on Federal lands and so forth. So we can expect that there will be a rash of anti-trapping bills in again.

On the next one, the Secretary of the Army would delegate to states functions with respect to locations and plans for structures, excavating, fills, dredging in certain navigable waters of the United States (H.R. 546 by McCormack). I believe this is the one that deals with trying to modify the amendment to Section 404 of the Water Pollution Act. And the international feels that this legislation shouldn't be tampered with at this time.

We have discussed this subject here too and there are quite a few of the states, including Minnesota, that don't like to have the Corps in their hair on this permit business. On the other hand, there are states that need the present protection of 404. We hope that something can be worked out that would permit the states that have an adequate permit system to protect their waters--to go their own route; and the other states then could rely on the Federal legislation.

The Fish and Wildlife Coordination Act Amendments of 1977 (H.R. 582 by Oberstar) - This is one of the very important pieces of legislation before Congress, and we hope it passes. It does many, many good things that those of us in fish and wildlife would like to see passed. It brings in the SCS and TVA under the umbrella of the Coordination Act. It would be a fine thing if the small watershed projects, for instance, were covered by this so we would have more of a hold on how these are carried out. The features to be installed within the Continental Shelf would be covered. That's a very important piece of legislation. And the operation and maintenance funds budget would be included in the agency budgets. It also provides that the Fish and Wildlife Service give money to the states for planning purposes on water resource projects. A very important piece of legislation and we will all have to get behind it. If you will recall, the International had a panel on this a couple years ago. When this bill comes up again, they have been talking about having another panel with four representative states on the panel to appear before the Congressional committee that will hear this and push for its passage. But follow through on this one.

The Endangered American Wilderness Act of 1977 (H.R. 1207 - Roe) - the International feels that this locks up too much land where management wouldn't be able to be carried out for wildlife management purposes. So, although we are in favor of wilderness, I guess in some areas in certain parts of the country we have to be careful about how much is going to be locked up to prohibit management.

The Fish Disease Control Act of 1977 (H.R. 1649 - Dingell) has been before Congress for quite a while. Arkansas has held this bill up--they are opposed to it and Director Hulsey there was some help in succeeding to bottle it up. But we favor this bill and it would help control the interstate transport of fish and the movement of disease and disease organisms between states. It would also provide for a study of diseases in the cold water fishes. So the International favors this.

The Federal Animal Control Act of 1977 (H.R. 1651 - Dingell) is Dingell's bill. Dingell sure gets on a lot of conservation and game and fish legislation. The Secretary of the Interior would be authorized to

provide financial assistance to the states for administration within the states for a program to manage predatory and depredating animals. We favor this. This bill, I believe, has been reviewed by the committees of the International and there has been a lot of controversy over the direction that should be taken. But, generally this bill is favored.

We talked about the next piece of legislation yesterday on one of the resolutions - increase of maximum amount of aggregate payments to carry out conservation agreements under the Waterbank Act (H.R. 1653 - Dingell) from 10 million to 50 million dollars. The Congressional committees under Talmadge and Dole have asked for comments from the Wildlife Management Institute, from the National Flyway Council, in respect to the operation of the Federal Water Bank Program. There was a Federal report of some sort out on the Water Bank Program. It wasn't very good. Minnesota asked Jack Crockford who is President of the National Flyway Council, to respond and a report did go into Talmadge saying that the Water Bank Program should stay in the Department of Agriculture. This is something we talked about in the Resolutions Committee here too, and also to expend 50 million dollars. There is feeling in some parts of the country that it would be expanded to include wintering grounds as well as production habitat. So there will be a resolution before us here this morning then.

To amend the Migratory Bird Treaty Act to prohibit the baiting of migratory game birds during certain periods (H.R. 1654 - Dingell and Forsythe) - this is opposed by the International. We should wait for a study that is being conducted by the Fish and Wildlife Service out in California, and we also feel that administrative procedures could be used to handle the baiting problem. A very controversial subject.

Federal permit for taking of any migratory game bird other than migratory waterfowl (H.R. 1655 - Dingell) - this would be a $1.00 permit issued by the Federal Government for the taking of migratory game birds. The net receipts would be used for the conservation of migratory game birds. We have opposed this in the past and the reason we have is that we feel this is moving in too much on the states and we know that most of the states have to put in for a license increase periodically, and this would diminish their opportunity to do this. It might create some problems.

To establish a pilot program to compensate persons who suffer loss of damage from predation by endangered species (H.R. 1966 - Oberstar) - Oberstar introduced this to compensate people who are suffering predation by the Eastern Timber Wolf, primarily in Minnesota. The Eastern Timber Wolf is classified as endangered. I think you all know the story "The Timber Wolf is neither Endangered nor Threatened in our state and it never was". It's a heck of a situation. The facts are disregarded and it's kind of a biopolitical thing at the Washington level, and it is proposed to put the timber wolf now into the threatened class and not to declassify it entirely. Lots of time and money have been spend on this issue and lots of agony. There is a review of the Endangered Species Program that had been going on the 19th, in Washington, and we hope that some of the problems with the Endangerd Species Act can be corrected. But Oberstar put this bill in, primarily I believe,

to focus attention on the problem. It is a bad-precedent type of bill and from that standpoint, it shouldn't pass. However, it calls attention to the probelm and it calls attention to the Department of Interior and the Fish and Wildlife Service that something has to be done about this problem. Our State Legislature just recently passed a bill of this type, appropriating $100,000 to reimburse people in Minnesota who suffer damage from endangred species, which would be the timber wolf.

The Natural Game Fish Stream Preservation Act of 1977 (H.R. 3266 - McCloskey) to provide Federal assistance for the preservation of streams. The states should handle this. We are all in favor of preserving streams and stream banks and water quality in streams, but this legislation has to be watched very carefully.

Another bill, Component Parts (S. 212 - Metcalf), is similar to S. 1294 introduced by Mr. Metcalf during the 94th Congress. It would impose an 11 percent excise tax on component parts of ammunition by amending the Pittman-Robertson Program. Also, one-half of revenue from tax on pistols, revolvers, bows, arrows, and the newly covered component parts would be apportioned to the states on the basis of population alone with the provision that no state may receive more than three percent nor less than one percent of such revenue. The bill restricts use of one-half of the tax on pistols, revolvers, bows, arrows and component parts, such portion estimated at 18.5 million dollars, solely for financing hunter education and/or public target range acquisition, maintenance and operation.

The Animal Health Research Act (S. 463 - Melcher) - this is okay. It would be aimed at minimizing the occurrence of diseases which can threaten wild as well as domestic game resources.

Now there is another Alaska bill that I have listed here and we have already talked about that, so I think we will go on to the next item which will be Number 19.

The Comprehensive Oil Pollution Liability and Compensation Act of 1977 (H.R. 4570 - Kasten) - John Keener called my attention to this and it is a comprehensive oil spill prevention package. It deals with tanker safety and so forth, and proposes a liability schedule covering vessels, classified as supertankers. This is okay. It is a good piece of legislation.

The next one - Authorizes Appropriations for Fiscal Years 1978, 1979 and 1980 to Carry Out the Commercial Fisheries Research and Development Act of 1964 (H.R. 6206). Normally you don't need legislation for something like this, but it's okay. I believe that these Commercial Fisheries Research and Development Act appropriations have been coming through, but attention would be focused on the importance of keeping up the appropriations.

A very important piece of legislation - Federal Aid in Non-Game Fish and Wildlife Conservation Act of 1977 (S. 1140 - Hart) - this bill supports a direct appropriation. The feeling is that the excise tax

on sporting goods--cameras, binoculars, camping equipment--which has been proposed, would be almost impossible to get through Congress. So Senator Hart has proposed a direct appropriation. We surely would like to see this; many of the states, of course are using game and fish money such as we are in Minnesota, for the Non-game Fish and Wildlife Program.

Now I have included an item on the steel shot regulations; it's Number 22 in the report. The reason I did this is to call attention to the fact that there will be oversight hearings on the use of steel shot before Congress. I don't know just when they are coming up. Have you heard anything on that Jack? No, well it may not come off but we were told that this would happen.

Environmentally redirect the ACP (H.R. 7269 - Harkin, S. 1616 - Clarke) - of course we favor this. This bill emphasizes enduring conservation practices. It is a very important piece of legislation. We all recall incidences and practices in the past when ACP used financial subsidies to encourage the draining of beautiful waterfowl marshes.

Natural Diversity Preservation Act of 1977 (H.R. 6286 - Sebelius) - I was going to ask Bill Bailey to comment on this, but since he stepped out...this bill provides for the identification and setting aside of adequate examples of the full array of unique and representative ecosystems and features for posterity. It is a very interesting piece of legislation. It defines an overall policy and it fills in the gaps in existing preservation systems. I don't believe that the International Association has reviewed this. Bill, do you have any further comments on that Natural Diversity Act?

BAILEY: I just received a copy and I have no comments whatsoever except that it seems to be supplemental to a lot of the other things we have been doing.

VESALL: I think you will all want to review that and we really do not have (inaudible) a firm position one way or the other.

One of the important pieces of legislation which I failed to list here is the Farm Act. Here of course the important thing is to see that Title 10 is continued. Title 10 is good--it provides for long-term enduring fish and wildlife practices and it has the tools we need, but as Keith Harmon mentioned yesterday, it has to be implemented. Is there a bill or bill number on this, Keith, at the present time? Something is going on there isn't it?

HARMON: I can't quote it right off hand. The biggest hassle has been over (inaudible) as you might well suspect (inaudible).

VESALL: So in summary, the most important bills are probably Oberstar's amendments to the Coordination Act, the Non-game Hart bill, the Alaska bills are very important, the extension of the Water Bank and the Farm Act. Mr. Chairman, that completes the report of the Legislative Committee, and at this time I wanted to say thanks to the members of my committee

who helped put the report together and furnished me some valuable information to be incorporated into the report.

BAILEY: Thank you very much for a very fine report and the entire group thanks you and the committee for the work that you have done on it. Are there any specific questions or further discussion of legislation.

COMMENT: I would just like to say something on H.R. 3633. It's tied up in the House Ways and Means Committee. Last month or so I sent out a copy of the (inaudible) and the members of the House Ways and Means Committee... It isn't going to happen unless you folks go back home and get busy writing your representatives where it is tied up in the House Ways and Means Committee. Ask him to get busy and get that bill out of Committee. It's going to take (inaudible) it just isn't going to occur. If you are interested in it, I think it's money in your hands.

BAILEY: Any other questions or comments?

MILT FRIEND: I'm not very familiar with the content of the Animal Welfare Act. I think a word of caution on legislation may arise relative to protection of wildlife against disease. I think we all have to be on guard against getting outselves in a position that wildlife are going to be destroyed to protect domestic animals against endemic disease as opposed to an exotic disease. I don't know where we are going with the Brucellosis eradication program, but I'm a little concerned in terms of a precedent being set where agricultural interests, and we are talking economics here...that we don't get ourselves in a position where wildlife are destroyed because they serve as a suspect reservoir. We are always put on the defensive if the diseases are coming from wildlife to domestic animals. In many instances this is not so. It's the other way. And this may be a very good bill--I'm not speaking against the bill--just a word of caution in dealing with legislation that we don't put ourselves in the hole.

VESALL: We appreciate those remarks.

JACK HEMPHILL: One update on Lock and Dam 26, the House bill went to major committee for rewriting during the past week and is being brought in line with ... It still carries (inaudible) study funding for essentially environmental fish and wildlife purposes, and it is expected out in a week to 10 days. It still carried the single flow (inaudible) ... lock 326 which will give the excess...(inaudible).

VESSALL: Mr. Chairman, do we have this report accepted?

BAILEY: I don't know if it is totally necessary, but if it is your pleasure we will accept it.

VESALL: I so move.

BAILEY: It has been moved and seconded that we accept the Legislative Committee report. Any discussion. All those in favor say aye; opposed.

Motion carried. I am going to take a little prerogative now with our agenda and switch the order of things. Fred, if we could have your audit report at this point.

Audit and Treasurer's Report- Fred Priewert, Iowa

PRIEWERT: I might add, Bill, that Fred Warders, Ken, Dave Vesall and I visited and I think we can take both the Audit and the Treasurer's report, put them into one and kill two birds with one stone.

BAILEY: We will proceed in that manner then.

PRIEWERT: This is basically Fred's report. As I mentioned, Ken and Dave and I went over it, and as usual everything is up to snuff and he does a good job. I want to be the first to commend him and further recommend that, under a little duress maybe, but he said he would accept the job for another year and I do think it is good that it isn't kicked around. So at the end of this report I am going to make a motion to that effect.

The status of the Association's funds at the close of business for the year 1976 relate total assets of $2,942.53. Total receipts for this period, including a 1975 cash balance of $70.53 brought forward-- $1,742.53. So we were down pretty low in 1975-down to $70.53. If you remember Wichita, we moved up the tariff, and we are now solvent. Total expenditures for the Rapid City Conference were $810.60. The Certificate of Deposit #101576 in the amount of $1,200.00 was renewed with the First National Bank, Pratt, Kansas, at 6 percent interest. Balance of 1976 cash account forwarded to the 1977 account was $931.93. IRS income tax exemption form #990 was prepared and submitted. The status of Association funds as of this date (June 28, 1977) relate total assets of $3,331.93 which includes the 1977 dues from 11 states and one province. Fred, correct me if I'm wrong, but I think they are all up to date now when we checked. Everybody is in. I think there were two missing at the time. No expenditure claims have been made on the current 1977 cash balance of $2,131.93 to date. The official Association financial ledger showing receipts and expenditures has been made available to the Auditing Committee. We looked it over.

I would like to make a motion that this report be accepted and that Fred Warders be commended, and that we give him the Treasurer's job for another year.

CHUCK HARRIS: Mr. President, I would like to amend that motion and not include the recommendation that Fred Warders be the Treasurer for next year because I think that comes up under Nominations. If the Nominations Committee does not nominate Fred as Treasurer next year, Mr. Priewert or anybody else will be in a position to so nominate. So I would amend that motion and strike out the part about voting him in as Treasurer until that comes up on the agenda. But I certainly

emphasize the commendation. He did an excellent job.

BAILEY: We have an amendment to the motion. Do we have a second to that amendment? It has been seconded by North Dakota. Any discussion? How do you vote--all in favor say aye; opposed. Motion carried. Now we will vote on the amended motion. Any discussion of the amended motion? All those in favor say aye; all those opposed. Motion carried.

Bylaws Committee Report - Fred Warders, Kansas

WARDERS: The State of Oklahoma and the Province of Saskatchewan provided formal notice for their withdrawal from membership in the Association. Since they have withdrawn, we should amend Article 2 of the Constitution provided for in outline in Article 6 during this business session. The Bylaws Committee made the adjustments to Article 2 of the Constitution by striking Oklahoma and Saskatchewan from the membership roll. Along with other minor changes, updating the language used in the draft amendment, we submitted this to President Bailey, who in turn provided copies to all the states and provinces 30 days prior to this meeting. Now, I would move at this time that we adopt this amendment. Before doing so, Bill, I think you should probably open this up for discussion because I think there are some members here that might want to add further amendments to this for the Constitution.

BAILEY: We will open up Fred's report for discussion then.

HARRIS: Are we discussing his motion or his report?

BAILEY: No, he hasn't moved yet. His report is still open for discussion.

STUART: Is that the only suggested change in the Bylaws that you are bringing forth?

BAILEY: I think there could be some discussion among the group on other suggested changes in the Bylaws, if there is some way I can get this kicked off, Russ.

WARDERS: Russ, we have amended some language where we talk about the Bureau of Sport Fisheries and Wildlife. We changed that to the Fish and Wildlife Service.

PRIEWERT: The question I am asking is if the International changed their name; I'm wondering if we shouldn't conform to that system.

HARRIS: We can't make any other changes from what you have now proposed because we have to have a 30-day notice for any other changes. Is this correct? But yet we can discuss those.

BAILEY: That is correct. Now I'm not going to play the role of parliamentarian here, but here are some needed changes I think in these Bylaws and the Constitution. I personally feel that the changes should be made just as quickly as we can possibly make them. Again, Russ, I'm going to call on you in just a few minutes here, but if we have to in some way by agreement waive the rules for the Bylaws for the Constitution to make the necessary changes here, I think it would be to our advantage. Now if we want to stick strictly to the parliamentary procedure or the parliamentary requirements of this association, then it may be a little difficult to make any changes--in fact it would be impossible to make any changes-other than those specified in Fred's report. And those have been circulated to each of you 30 days prior to this meeting. Russ, why don't you comment.

STUART: I agree with the changes made, and I have another one to suggest. I am not one to stand too much on protocol, and have a set of Bylaws that lock us in to doing business when it needs to be done. I can appreciate the fact that it should be delayed; in other words, notice should be sent out and so forth. But I think that most of the states and provinces in the Association are represented here today. And they are the ones that made the Bylaws and the Constitution, so I think we are in a position to act on some changes. I agree that we should follow the International and update the name of this. And I have another one that I think is very important, and that is in regard to the tenure of the officers of the organization. Right now the incoming president does not take over until the calendar year -- in other words, January 1 -- which leaves a void period of roughly five months wherein the outgoing chairman feels that maybe he doesn't have the responsibility or doesn't want to usurp the rights of the incoming president. And the incoming president doesn't want to touch anything until January 1. So I have a suggestion that the incoming chairman assume the chairmanship immediately after this meeting or we will say the beginning of the following month, August 1 or something like that. I don't care. But I think that we have a very unwieldy situation at the present time.

BAILEY: I'm not going to enter into this discussion too much, but I wholeheartedly agree with what Russ is saying. I think we do have an unwieldy situation now. I think it would be much more functional if the incoming, and I thought this myself, had the opportunity to start work immediately and have a full year prior to this meeting to conduct the work of his office. In effect, he has only about six months in which he could really be a functional individual. For the next five and one-half months he is virtually a lame duck, and I think this suggestion is something that is needed to try to make the officers a little bit more functional, and possibly they can't be under the present system.

INDIANA: I also agree. I think that is a good concept to do, but we would have to clarify whether the new president would take over immediately after the business meeting, or if we just set the date of the business meeting. Because I think traditionally in other agencies when the new president takes over, he assumes the new business at the

business meeting and conducts the remainder of the meeting. So, if appropriate, I would move that the president would take over immediately after the business meeting.

BAILEY: Could I back up just a little bit because I think we are going to have to get this issue settled of waiving the requirements of the Constitution and Bylaws before we take any further action.

STUART: I have discussed this with a few people, and it perhaps should be 30 days after the annual meeting because the resolutions should be the responsibility of the host chairman. In other words, the business at hand should be taken care of, and I think 30 days is a reasonable period of time. So I'll amend my suggestion to...

BAILEY: Could we agree to get this other out of the way so that our records are somewhat clean in terms of waiver of the Bylaws based on, you can term it an emergency if you wish, but I would like to get from this group a waiver of those Bylaws if we can agree on it.

HARRIS: I talked to John Keener about this yesterday before he left and he is agreeable to either position. He would be ready to take over now if that's the wish of the group, assuming that he will be the next president. And he will not feel remiss if he only serves six months next year by taking office in January until the 1978 meeting. So, John is amenable to either solution.

BAILEY: I also talked to John Monday morning when he first came in, and we discussed this subject at length. I think John would be in a better position if you could place him in a position where he could begin to function immedately.

JACK MERWIN: I would move that the Bylaws be suspended for the purpose of amending the Bylaws.

BAILEY: Moved by South Dakota and seconded by Ontario that we suspend the Constitution and Bylaws for the purpose of amendment. Is there any discussion? All those in favor say aye; opposed no. Motion carried.

BAILEY: Let's move to the business now.

STUART: I move that beginning in 1977 that the term of office of the incoming officers begin 30 days after the conclusion of the current annual meeting, and that this be a continuous thing until somebody sees a necessity for change.

BAILEY; It has been moved by North Dakota and seconded by Iowa. I'm going to ask the Chairman of our Bylaws Committee to write this up if you want. There will have to be a change to the Constitution on that. And we will write it up in proper form. Is there any more discussion of North Dakota's motion? All those in favor say aye; opposed Motion carried.

BAILEY: Now there is one other motion that was suggested here.

PRIEWERT: The Association of Midwest Fish and Wildlife Commissioners, the title of the group should be changed to conform with the international. It is an Association of Midwest Fish and Wildlife Agencies. I think that is the way it should be.

BAILEY; The only word you would have to change is the last one--Commissioners.

PRIEWERT: And I so move.

BAILEY: Moved by Iowa, seconded by North Dakota. Any Discussion? All those in favor say aye; opposed. Motion carried. Now, Fred, we need a motion for you to accept the changes recommended by your committee.

WARDERS: I so move.

BAILEY: Moved by Kansas, seconded by Michigan. Is there any discussion?

HARRIS: I was wondering if the National Marine Fisheries Service, U.S. Department of Commerce, should also be named in the Preamble along with the Fish and Wildlife Service and the Canadian Wildlife Service? The Coordination Act will cover them now and if it is passed--they have direct function with many of the states in the Midwest.

BAILEY: We are making some rather sweeping changes here now. If I could take a little bit more perogative here. Possibly the next Bylaws Committee could possibly address the question that is brought up here. Is there any more discussion. It has been moved and seconded.

HARRIS: I think suggestions from the floor is an excellent idea though; it ought to be made more a part of the conference.

BAILEY: My suggestion is that it be addressed by the next committee. If they approve or have any different feelings from that, then I will entertain a motion from the group to ... Let's first get this motion out of the way. All those in favor say aye; opposed. Motion carried. Now, are there any other suggestions before I close this topic?

PRIEWERT: The U.S. Fish and Wildlife Service is the old name--are you going to leave all those little semantic changes to the next group? Is that what you are suggesting?

BAILEY: No, I think the Bylaws, Constitution, Preamble, everything is now changed to conform with the names of the agencies as they are presently structured. I don't know whether it will be next year, but I think we have got it in accord with what we now have.

PRIEWERT: Do you want a motion to that effect then, that the Bureau of Sport Fisheries and Wildlife be changed to the U.S. Fish and Wildlife Service?

BAILEY; We have already accepted the report submitted by the Bylaws Committee and that is included there.

STUART: Mr. Chairman, I think this can be handled very easily by the incoming Chairman when he sets up his bylaws committee, that he recommends that they make these changes so that the names of the various agencies are in conformance with their actual name.

BAILEY: The Chair fully agrees with North Dakota.

HARRIS: Well as long as we can to it without a lot of monkey business, I would move that they include the National Marine Fisheries Service.

BAILEY: Now we have a motion. Do we have a second? The motion is to include the National Marine Fisheries Service in the Preamble. Seconded by Illinois. Any discussion? All those in favor say aye. All those opposed. Motion carried.

WARDERS: Now a question in my mind is the charge to the current Bylaws committeewhat you want us to do now with these changes and so forth.

BAILEY: I suggest that the current Bylaws Committee make the necessary changes, prepare the constitution and Bylaws with the correct language. We will make it available to reach of the member states and provinces. If there is error, the incoming president can then handle the error the next meeting of this association. So, Fred, you handle the terminology that is involved here. Several changes have been made rather quickly and I think I will close this topic. Dale, I think we will now take the resolutions.

HANEY: All of you I think have copies of these resolutions (Appendix II). If you approve, I will just go through the "Now, therefore, be it resolved..." part without reading them in their entirety. If there are any objections, we will lay them aside and come back and discuss the changes or objections.

Resolution I - Water Bank Resolution: Now, therefore, be it resolved, that the Association of Midwest Fish and Wildlife Commissioners assembled at its 44th annual meeting this 21st day of July 1977, at Lincoln, Nebraska, urges full and continuous funding in the amount of $50 million as specified in HR 1653.

STUART: I have one suggestion that from now on, just start with the words after"...Lincoln, Nebraska...".

HANEY: All right, I'll buy that.

Resolution II - Proliferation of Committees: Now, therefore, be it resolved that the President and incoming President of the Midwest Association shall set up within 60 days an ad hoc committee to study the problem and that this committee be directed to make a report and

recommendations at the 1978 meeting of the Association. Now, due to the Bylaw changes, you can strike "President." Is there any discussion?

Resolution III - Resolution Concerning Planned Water Developments: That the Association, herewith commends President Carter for the positive stand that he has taken (on planned water developments). Any discussion or comment.

Resolution IV - Resolution Concerning Waterfowl Habitat Management: The Association urge the U.S. Fish and Wildlife Service to assign two full-time employees to the Fergus Falls, Minnesota Wetland District Office to conduct the program designed by the Midcontinent Waterfowl Management Unit Committee, and BE IT FURTHER RESOLVED, that copies of this resolution be sent to Dr. John Rogers, Harvey Nelson, Jack Hemphill, Lynn Greenwalt, Bob Herbst. Any discussion?

BAILEY: Did I reverse those and put the positions first?

HANEY: Yes (inaudible) Any comment or discussion?

Resolution V - Concerning Conservation and Environmental Enhancement: The Association -- urge the enactment of legislation to redirect the Agricultural Conservation Program to include only those practices that are of an enduring conservation and environmental enhancement nature. BE IT FURTHER RESOLVED that copies of this resolution be sent to Senator Dole, Congressman Harkin, and Robert Berglund, Secretary of Agriculture. Any comment or discussion?

Resolution VI - Concerning Appraisal of Land and Water Resources: The Association urges that the House and Senate Conference Committee appointed to resolve the differences in the bill select the wording in S. 106 that requires a national appraisal, development of a program to meet specific soil and water conservation needs, and submission of annual reports on the effectiveness of the program, and BE IT FURTHER RESOLVED, that S.106 be amended under Section 8 to read "The Secretary shall transfer out of appropriations or other funds made available to complete studies, investigations and appraisals required to carry out the purposes of this Act such funds as are necessary to enable State Resource agencies to carry out all or part of any such studies, surveys and appraisals. Any discussion?

Resolution VII - Tax Credits for Landowners: The Association urge that the Congress pass legislation that would provide a tax incentive for landowners establishing wind erosion and wildlife habitat areas, and BE IT FURTHER RESOLVED, that both the House and Senate Committees on Agriculture add to the language of such legislation a provision for tax credits to landowners who also maintain existing areas of wildlife habitat and wind erosion such as farm woodlots, farm shelterbelts,

field windbreaks and natural woody vegetation. Any comment or discussion.

RICHARD GOULDEN: Mr. Chairman, I think the word "control" should follow in both cases wind erosion. I don't think we want to maintain wind erosion areas.

HANEY: The reason that was worded that way is because that's the way the bill was worded.

COMMENT: We discussed that in committee; somebody else caught it too.

HANEY: Any other discussion?

Resolution VIII - Concerning the Missouri River Bank Stabilization and Navigation Project: The Association strongly endorses this effort on the part of the Corps of Engineers to seek measures to mitigate fish and wildlife losses which occurred as a result of the Missouri River navigation project, and BE IT FURTHER RESOLVED, that the Midwest Association request the Corps of Engineers seek authorization from Congress for measures that will realistically mitigate fish and wildlife losses which occurred as a result of the Missouri River navigation project, and BE IT FURTHER RESOLVED, that the Corps not restrict the fish and wildlife mitigation program but further recognize all other detrimental aspects of the project. Any discussion?

Resolution IX - Concerning Parts of Missouri River Being Designated Recreation River: The Association does hereby strongly urge the Department of Interior to recommend to Congress to designate the Missouri River from Gavins Point Dam to Ponca State Park, Nebraska, as a recreation river under the provisions of the Wild and Scenic Rivers Act. Discussion?

BAILEY: The language there might have to be reworded a little bit for Congress to include the Missouri River and that it be designated. The first line strike "include" and the third line strike "be designated."

STUART: As long as you are on that line, wouldn't it be better to have "... the Department of the Interior recommend to Congress to designate..." It's rather ambiguous the way it is written nowthe Department of Interior to recommend and the Congress to include. I think it should be "...the Department of Interior to recommend to Congress to designate..."

HANEY: The change would read "..strongly urge the Department of Interior to recommend to Congress that they designate the Missouri River from Gavins Point Dam, to Ponca State Park, Nebraska, as a recreation river under the provisions of the Wild and Scenic Rivers Act." Any other discussion?

Resolution X - Concerning Farm Programs: The Association encourages Congress to retain, strengthen and implement Title 10 of the 1973 Farm Bill so as to maximize wildlife benefits. BE IT FURTHER RESOLVED that Congress provide in new farm legislation a tax incentive to private landowners who devote lands to wildlife production, and BE IT FURTHER RESOLVED that the Association supports adequate funding of at least 25 million to carry out those practices which have direct and significant benefits to wildlife.

BAILEY: You better insert "dollars."

KEITH HARMON: Bill, I think it would be well to have it, because it is something that is very sharp, to add "BE IT FURTHER RESOLVED" to direct it to specific people.

HANEY: I would agree. What's your suggestion?

HARMON: I saw it on one of the other bills or resolutions. Make it the same way as the end of Resolution #6.

HANEY: Any other discussion?

COMMENT: I'm a little bit concerned about designating a specific amount of money. Would it not be justice if we say an adequate funding of the program and not necessarily designate 25 million dollars which perhaps could be quite low. Davis indicated that night that this figure was more or less drawn from the sky.

HARMON: I think it is the same amount specified under the sewage treatment program...(inaudible)

COMMENT: My only concern would be that 25 million dollars would be inadequate.

INAUDIBLE COMMENTS...

HANEY: Is there any other discussion?

HARMON: You might want to leave the word "adequate" out...(inaudible)

LANE: I notice in all these bills that talk about money, you are sending them to committees like Agriculture, but you are not sending them to the House Appropriations Committee. Is there a reason for that?

HANEY: Not that I am aware of.

LANE: It would seem to me that they would be the ones...that they would be a good place to send copies to.

HARMON: Could we include that in the motion for approving the resolutions and all those resolutions referring to appropriations, that copies of those go to the Appropriations Committee. The thing you are dealing with here is the enabling legislation...

LANE: Right, but when the legislation authorizes funds, the Appropriations Committee is the committee that produces those funds. You have got to work on two fronts here...(inaudible)

HANEY: Any other discussion?

Resolution XI - Concerning Management of Migratory Shore and Upland Game Birds: The Association urges the Congress of the United States to provide increased financial support for the Fish and Wildlife Service and the individual states through grant projects and the Accelerated Research Programs to implement or enhance management and research projects recommended to properly manage migratory shore and upland bird populations and to increase public enjoyment of these valuable resources. Any discussion.

Resolution XII - Concerning Standardized Procedures in Evaluating Water Resources Projects: The Association urges the completion of the Fish and Wildlife Evaluation Procedures and that the final procedures be approved by the National Coordinating Committee. Any discussion.

Resolution XIII - Dealing with the Indian Problem: The Association urge Congress and the Executive Branch to recognize the seriousness of these issues and as a matter of high priority enact legislation to modify Indian hunting and fishing rights so states can conserve their resources and that these rights be equally applicable to all citizens. Any discussion?

STUART: I would make one minor change with the word "resource" should perhaps be plural, "resources."

HANEY: Any other discussion?

BAILEY: Let me just ask one quick question on this one. Is there any specific agency or group that this should be forwarded to?

GOULDEN: Mr. Chairman, before you move on to that one, if you were to clarify the Indian hunting rights in such a way that they had, in fact, the right to do what they are doing now, then you are saying that right would be equally applicable to all citizens. Is that what you want?

STUART: Change "clarify" to the word "modify."

GOULDEN: You are assuming the outcome of that clarification...(inaudible).

HANEY: Change "clarify" to "modify". Any other discussion?

KEN IRIZAWA: (inaudible)...we could ask to have the appropriate Canadian agencies listed but that would require such a big, major overhaul that I think we should hold off until next year.

STUART: I think you made an excellent suggestion. We completely eliminated the Canadian provinces and they have the same problems with Indians as we have. I think they should be included if it takes another FURTHER BE IT RESOLVED, it should be added.

IRIZAWA: I would be willing to hold off until next year Russ, because that would be my excuse for coming to the Association meeting next year.

STUART: Whatever way you want to play it.

HANEY: Any other discussion?

Resolution XIV - The Resolution Concerning Toxicant and Pesticides: The Association memorialize Congress and the Environmental Protection Agency to maintain and toughen its enforcement stance on environmentally toxic substances. Any discusssion?

Resolution XV - Introduction of Harmful Species: The Association reiterates the position of the International Association of Fish and Wildlife Agencies that the U.S. Fish and Wildlife Service make recommendations to Congress for improvement of the Black Bass Act that would meet defined problems. Any discussion?

Resolution XVI - Concerning Utilization of Excess Property: The Association draft (in cooperation with the Fish and Wildlife Service) appropriate legislation, amending the Federal Property and Administrative Services Act of 1949, to authorize the transfer of excess personal property (including title) without cost to guarantees by the Fish and Wildlife Service for use in approved or approvable projects. Discussion?

Resolution XVII- Concerning Agricultural Conservation Programs: The Association encourages Congress to pass the legislation which will direct the U.S. Department of Agriculture to offer ACP practices which will provide federal cost-share to landowners for establishment, and continued maintenance of undisturbed wildlife nesting cover, for at least two years following the year of establishment. Discussion?

Resolution XVIII - Funding for Registration of Fish Chemicals: The Association urges the U.S. Fish and Wildlife Service to obtain information for the registration of needed fisheries chemicals. Discussion?

HARMON: It almost looks like you are after them to plead guilty... (inaudible)

PRIEWERT: Maybe what you need to do is after "needed" say "environmentally sound fisheries chemicals" or something like that---put a weasel word in there?

HARRIS: You could change it all to say "...obtain information for the registration of needed fisheries chemicals." And the information you get would speak for itself whether or not it's going to be registered. You got to get both sides of it.

HANEY: Change it to "...to obtain information for the registration...?"

HARRIS: Yes.

HANEY: Any other discussion.

Resolution XIX - Support of U.S. Senate Bill 1140: The Association supports U.S. Senate Bill 1140, sponsored by Senator Gary Hart of Colorado, PROVIDED THAT: 1. The Bill be amended to include a manufacturer's excise tax on certain outdoor recreational equipment and supplies, the revenues from which would be used solely for the support of nongame fish and wildlife restoration and conservation programs. Discussion?

IRIZAWA: You should be able to strike the "1." because there is only one.

HANEY: Yes.

STUART: The "1" should be between the two "X's" to read "XIX."

COMMENT: If I'm not mistaken, Section 10 of that bill provides for the Secretary to conduct studies to determine the best ways to finance the bills. Would this mean that you would not be in favor of that at this point in time?

HANEY: I do not read it that way. Would be expressing support for this method of funding. Any other discussion?

Resolution XX - Availability of Therapeutics and Prophylactics Used to Control Fish Diseases: The Association urges the U.S. Food and Drug Administration, the U.S. Environmental Protection Agency, Congress, and other appropriate governmental public and private interests to recognize the need for the use of appropriate fish disease control therapeutics and prophylactics to obtain maximum survival of healthy fish from hatcheries, and to pursue all possible means to assure availability of these essential agents through expedition of proper registration. Discussion?

BAILEY: Wait just a minute. You have here the Great Lakes.

HANEY: That's wrong. It didn't get changed over in the retype. It should be "Midwest Association". Any other discussion?

Resolution XXI - Support of H.R. 582, a Bill to Amend the Fish and Wildlife Coordination Act: The Association supports the amendments to the Fish and Wildlife Coordination Act contained in H.R. 582; and BE IT FURTHER RESOLVED, that copies of this resolution be forwarded to the Secretary of the Interior, to the Secretary of Commerce, to the Chairman of the House of Representatives Committee on Merchant Marine and Fisheries, and to the International Association of Fish and Wildlife Agencies. Any discussion?

Resolution XXII - Opposition to S.2084, H.R.8784 and H.R.13629; Anti-Trapping Legislation: The Association opposes legislation such as Federal S .2084, H.R. 8784, and H.R. 13629 or any other legislation which in effect aims to abolish leg-hold and steel traps completely; and BE IT FURTHER RESOLVED, that this Association approves the use of leg-hold steel traps used properly in water sets designed to immediately drown the captured animals, or used in upland sets of a proper size so there is little if any damage to the captured animal, when tended regularly; and BE IT FURTHER RESOLVED, that copies of this resolution be forwarded to the appropriate members of the U.S. Congress and to the International Association of Fish and Wildlife Agencies. Any discussion?

GOULDEN: On the very last line there, "...little if any damage to the captured animal..." -- presumably if you kill them, you damage them. Are you talking here about damage to the fur or are you talking about suffering. Is it really little if any suffering that we are meaning here, or is it damage to the pelt? Because if you were to set an upland set in such a way as to not damage the animal, presumably you couldn't kill it.

HANEY: Well, I'll bet we could go with deleting that whole thing.

GOULDEN: Because they will pick away at us on this one. I don't know how you can kill an animal without damaging it.

HANEY: Why don't we just delete after "proper size"; does that cause any problems to anyone?.

COMMENT: Mr. Chairman, and change to "and tended regularly."

HANEY: Any other discussion?

HARMON: On the paragraph, NOW THEREFORE, BE IT RESOLVED, second to last sentence, the first word, you have got "such as Federal S. 2084," "Federal" there should go "...opposes Federal Legislation such as..."

HANEY: If you insert "Federal" there, you are restricting it to your opposition to only Federal legislation. You oppose legislation whether it is state or Federal.

HARRIS: Well, it clarifies it if you say "...opposes any state or Federal legislation..." and give an example of the Federal legislation.

HANEY: Any other discussion?

VESALL: Are you going to strike out that change of title then altogether to "Anti-Trapping Legislation?"

HANEY: I think just "Opposition to Anti-Trapping Legislation."

COMMENT: And you can also drop "...or any other legislation..." with Chuck's amendment.

HANEY:

Resolution XXIII - Concerning Section 404 of P.L.92-500: The Association supports President Jimmy Carter's position on natural resources expressed in his Environmental Program, especially his recommendation to amend Section 404 Federal Water Pollution Control Act to authorize the states to assume responsibility for carrying out major portions of this program. Further we recommend that those states that presently have a program which meets U.S. Army Corps of Engineers Section 404 regulations be delegated such authority. Discussion?

STUART: Dale, I have a reservation--not to the resolution, but I hate to see North Dakota be delegated the authority right now, because they just wouldn't get anything done.

HARRIS: Well wouldn't you rather start to delegate the authority, you would have to have a test of all the state legislation and a program that would be suitable to the Corps before it could be delegated to you.

STUART: I agree...but the problem is we have a health department that would be the agency that would get the authority, and they would absolutely do nothing in regard to 404.

VESALL: Mr. Chairman, I sat in on the actual coordinating committee meeting last year, and this problem that Russ bring up now in reference to North Dakota was also brought out by other states--Tennessee for example. They need the protection that 404 gives, and this resolution authorizes the states to assume responsibility for carrying out major portions of this program. It's a bad one to monkey with.

STUART: That's my concern because the Health Department will assume the authority but they won't do anything, the same as they don't do anything on pollution control. They have sole authority but they will not act. And it puts the other agencies in a position that they can't do anything.

HARRIS: In your state isn't EPA carrying out Federal permit issuance and enforcement?

STUART: They have got EPA in their pocket.

HARMON: That authority can be delegated by EPA.

HARRIS: I know--we have it, but there are only about 30 some states that do it. (inaudible)...carrying out the initating of federal permits. In 30 some states, the states are issuing those permits under regulation and rules of EPA, but the balance of the states aren't. And I understood EPA in those states was carrying the program independent of the state.

VESALL: Mr. Chairman, we have to be careful on this resolution so we don't play right into the hands of the drainage interests.

STUART: I think right now we have a serious problem up there. Some of you are familiar with the Devils Lake controversy of a few years ago. Of course, the small watershed program was killed because there is so much opposition. But now they are going to do exactly the same thing. They have the approval of EPA and the Corps of Engineers because they are stopping the channel less than one-half a mile from Devil's Lake. Keith is quite familiar with that, and we think it is a tragedy because we think what they are going to do is not to the lake itself but to the wetlands above...

HARRIS: Mike, this is the resolution I brought in and if it causes states that don't have that in state legislation and an adequate state progarm,--we feel we do in our state and it is administered by our department. It goes much further than 404. We have even got a flood plain act where you can't destruct or build the flood plain without a permit from us.

STUART: I agree...(inaudible)

HARRIS: If it is going to cause problems, I would be willing to withdraw the resolution. We are working out a solution with it--it isn't quite what we want but.

STUART: Understand I'm not opposed to the resolution, but I am concerned, and I think other states have the same problem as we have, but the laws can't be coordinated as far as we are concerned.

VESALL: Mr. Chairman, our state of Minnesota has good laws and regulations ...in zoning Lake Michigan. I'm speaking for the states that need the protection of 404 the way it is now, and the position of the International is that we have to be awful careful to make recommendations to change this law. The International has been following it and maybe we should leave it up to them.

HANEY: Do you want to pull this one out and...(Inaudible) separately?

HARMON: I think there has been considerable effort with legislation by Carter to give that authority back to the states. It may be well to go along with that from the standpoint of the law itself. If that isn't adopted,... I think we are going to lose the law. (Inaudible)...support if Carter's recommendation for the states to have control, if and only if the state has a program that is administered and enforced within the guidelines of Section 404.

COMMENT: I would recommend that the final sentence be slightly reworded to read something to the effect, "Further we recommend that no state be delegated such authority unless such state has laws and regulations (inaudible) them in criteria of Section 404".

HARRIS: And add, "...and adopts an effective program."

HANEY: Would that solve your problem, Russ?

STUART: I don't want to make a big issue out of it, but I agree with... (inaudible)...with the watershed program.

COMMENT: We went to the Corps of Engineers first, and they said they have no jurisdiction. Then we went to EPA and the reply from EPA was that this was delegated to the state, but they are going with it because of political pressure. So then we went back to EPA and said we don't think North Dakota is complying and we got a letter back from EPA saying we shouldn't be sticking our nose in their business anyway. You end up in these real controversies when the state doesn't have legislation and does not enforce it. You are at the mercy of the drainers, and so forth.

STUART: Well the problem is that plus the fact that it may help you (inaudible) control of the most beautiful regulations from anything that you can imagine. But then they just set them aside and they are never implemented. This is exactly what we are trying to do with 404 up there in North Dakota right now.

INAUDIBLE COMMENTS...

HANEY: Let's go on and then I'll...

FURTHER WE RECOMMEND that no state be delegated such authority unless such state proclaim laws, rules and program which meets or exceeds minimum requirements of Section 404. Any other discussion on that one?

Resolution XXIV - Commending the State of Nebraska. The Association express to Governor Exon and the Nebraska Game and Parks Commission and staff its appreciation and gratitude for the excellent arrangements and hospitality in hosting this annual meeting. Discussion.

COMMENT: Just in keeping with the format, how would it be to say "there" instead of "its."

HANEY:

Resolution XXV - Expressing Appreciation to Governor Exon - The Association wishes to express their appreciation to Governor Exon for his appearance before the Association. BE IT FURTHER RESOLVED that we commend him for his vigorous support for professional wildlife management and role of hunting as expressed in his address.

HARMON: I would recommend you take "vigorous" out of there because he sure as hell doesn't support it very vigorously.

HANEY: Any other discussion? Mr. Chairman, I would move the approval of Resolutions I through XXV; and further, that any resolution that deals with appropriations be sent to the Chairmen of the appropriate Appropriations Committee.

HARRIS: I would like to add that copies of all resolutions go to the Resolutions Committee of the International, the Executive Director of the International, and the President.

BAILEY: We have a motion to approve all resolutions I through XXV, amend the language (inaudible). Is there a second? Seconded by Michigan. Any discussion?

INAUDIBLE COMMENTS...

BAILEY: Just a moment now; I have a motion and a second. Is someone now wishing to amend a resolution that has been printed here?

HANEY: I would amend my original motion, Mr. President, to add the word "control" for Resolution VII.

BAILEY: Have you already seconded that? Seconded by Kentucky. All in favor say aye. All opposed. Motion on the amendment carried. Now the original motion. Any more discussion?

IRIZAWA: In Resolution I, the people submitting the resolutions should try to work up a shorter title.

HANEY: I add titles to all of them.

BAILEY: Okay. Any further discussion?

VESALL: Mr. Chairman, I was wondering if there is any means whereby you could give some publicity to some of these key resolutions. We do that back home, some of us, and we follow through, but as a follow-up to this meeting, give the meeting a little publicity, and somebody publish some of these. Just an idea.

BAILEY: We had a reporter here just a moment ago, and I don't see him right at the moment. I think it might be well if he did come in. Are there any other items of discussion? Mr. Hornbeck, as a reporter, the group would like to get a little bit of publicity on some of the key resolutions that are given here. I know you have been studying them. So anything you could do to...

HORNBECK: Did you throw any of these out?

BAILEY: No. All are accepted, but some of them have been reworded a little bit. I have the amended language on my copy. It will be available as soon as we finish this meeting.

HORNBECK: Well, I'm due in the Throne Room in Omaha at 11:30.

VESALL: Mr President, I have been exposed to this type of thing before. It might be well if we took the most important amendments for him to handle.

BAILEY: We don't have anything adopted as yet. Let's move for adoption, and then maybe you can give us some suggestions on which ones you consider the key amendments. Is there a question on the motion? All in favor say aye. All opposed. Resolutions are adopted. Now, does anyone have any suggestions for the press on which you perceive to be the key resolutions?

HARRIS: I would suggest that the Chairman of the Resolutions Committee who took part in all the discussions meet with the press and find out the resolutions.

BAILEY: Mr. Dale Haney from Ohio. The next item is the Awards Committee Report with Ken Irizawa of Ontario.

Awards Committee Report - Ken Irizawa, Ontario

IRIZAWA: Thank you very much, President Bill. You know, in giving this report, I feel like a three-time loser because all the recipients that we are commending for the awards are not here. Before going any further along, I would like to express the appreciation of the Awards Committee to Jack (inaudible) of the State of Illinois when the committee met. Jack very kindly made arrangements for us at the (inaudible) Hilton Hotel and fed these two members very sumptuously. So I would appreciate it if you took the word back to him.

The report of this committee will be in two parts. First, Chuck Harris and myself met in Chicago on May 20. Russ Stuart and Jack Ellis were unable to make the meeting. So Chuck and I unanimously agreed that the recipient of the Midwest Award of Merit this year should be Lester P. Voigt. Les Voigt, a native of Eau Claire, Wisconsin, obtained his undergraduate and graduate degree at the University of Wisconsin and was also an instructor at this University. During World War II he was a Naval officer and supervised the shipbuilding in the Ninth Naval District. As you all know, during his career, Les was Wisconsin's Conservation Director for 13 years and following that, Secretary of the Department for nine years. Right at the moment, he is Chairman of the Great Lakes Fishery Commission, and left us also one of the original appointees to this commission by President Eisenhower. And his appointment was continued by Presidents Kennedy, Johnson, Nixon, Ford and presumably Carter. I have here a list of all his other offices, but in the interest of time, I will skip those. On a social note, he also (inaudible) a resident of Madison, is happily married with three children and including his son, Stu, #83 I think, a tight-end with the Minnesota Vikings. During Les's tenure in natural resources in Wisconsin, we can list a number of accomplishments: (1) The longest

tenure of a State Chief Natural Resources Administrator anywhere in the country--22 years, vast expansions in Wisconsin public land ownership and development; (2) 230,000 acres of added public hunting and fishing grounds in the State; the state parks increased six-fold during his tenure. (3) A leader in the devleopment of Wisconsin's wild river program, and so on. It's a list of 16... The Awards which have been presented to Les are countless, and we in the Association are proud that the Association's Award of Merit is being presented to Les Voigt in recognition of his many contributions. Inasmuch as we have been forwarned that Les could not be in attendance, we have already entrusted to John Keener to make the presentation on our behalf to Les at a farewell function that is being held in Madison on July 29.

In addition to the award to Les, the Committee wishes to recognize the efforts of two people who in particular toiled mightily in the hosting of the 43rd meeting of the Association in Rapid City last year. Before I get there, though, I would like to give full credit to President Bill, Larry and--I have forgotten the name of the I&E people involved, Bill, but to your I&E staff.

BAILEY: I would like to mention Liz Huff in particular.

IRIZAWA: Liz Huff. For producing an eminently attractive certificate in quantity. I know I am warming Fred Warder's heart, because they were done free gratis, and as you can see, a very attractice certificate. So the future award committees will be very well supplied. First I wonder if--who's located the closest to John Popowski? Would it be Mr. Lockard in Illinois? Yes, I wonder if you would accept this on behalf of John who, as you know, is no longer with South Dakota. But express to John our appreciation for his capable handling of the Presidency last year. Secondly, we would like to present another Certificate of Appreciation to Chuck Post who also very capably handled the myriad duties which John found a little onerous but which contributed to a very well run conference. So, in the absence of Chuck, I wonder, Jack, if you would present this to Chuck appropriately.

MERWIN: For those of you who may not recall Chuck's contributions specifically, he was the provider of the Swedish meatballs, the bountiful bottles of booze, and shepherd of the secretarial pool.

IRIZAWA: Okay, the second part of my report is a proposal by the Awards Committee, and again I am trusting that we have the concurrence of the other two missing persons, Stuart and Ellis. When Chuck Harris and I met, we pondered the direction that the annual awards should take. We considered a number of situations, and we asked ourselves the following questions: Should the Association expand its awards program? For what purposes should the awards be given? Does a recipient of an award have to be an employee of a member agency? Can awards be given to any individual, a private citizen, member of some other agency such as the U.S. Fish and Wildlife Service, U.S. Forest Service, Soil Conservation Service, or to a private organization, or an employee of industry or to that industry itself. Then we talked over the kinds of awards that might be possible. (1) A special award having important significance

to be given for some outstanding service, either on a one-time or a long-time basis, which benefited the members of this association or something that was done in his own state or area of responsibility which had Midwest or even wider significance. Just editorially, we might say that we feel Les Voigt fits this category. (2) Certificates of Appreciation would be given to employees of the member agencies who provided services to the Association, such as serving as President, Secretary, Treasurer, or in some other particular capacity. (3) Coming back to the special awards again, Chuck and I felt that we should have special awards, firstly, for some outstanding service to the region--say to the Midwest Region or to the agency which contributed positively to the programs of one or more of the other member agencies. A citizen who has made a meaningful contribution to the management of natural resources, a citizens conservation organization which has carried out either a one-time or a long-time meaningful program. (4) Agency employees who have contributed long-time service to a member agency of the Association and through such service, has contributed to the Association. (5) To an industry or business which has made a like contribution. Mr. Chairman, I would like to propose, in the form of a motion that the recommendations as embodied here be accepted, and that next year's committee be expected to crystalize our thinking a little bit futher. Even without this approval, we have brashly gone ahead to attempt to adhere to the essence of the recommendations we are making. Secondly, Mr. Chairman, I would further move that the appropriate official of the Association, which I think is just a euphemism for Fred Warders, be instructed to obtain cost estimates and subsequently purchase a supply of those wooden and enamel award plaques similar to the ones presently in use, with perhaps Saskatchewan and Oklahoma deleted. I understand there are just a very few left.

BAILEY: We have a motion that has been seconded by Michigan. It will be open for discussion. May I ask one question quickly. Did you mean for Iowa to do this or could we assign that again to our new president and the purchase of the new plaques?

IRIZAWA: No, I said Warders, not Priewert.

BAILEY: Pardon me. I must not have been listening. Any discussion? Questions? All those in favor say aye; opposed no. Motion passed. May I make one suggestion too, and if our reporter is still here, you might want to get some news particularly on Les's award. Ken, I understood that motion to instruct Fred Warders to order a supply of new plaques... (inaudible).

IRIZAWA: If he could get the plaques purchased now while it is still cheaper than three years down the line.

BAILEY: And that would be deleting Oklahoma and Saskatchewan from the...

WARDERS: Who would I work with on this?

BAILEY: I would suggest that you work with the new president.

VESALL: Mr. President, should we release information on Voigt's award at this time before the recognition thing?

BAILEY: What's the pleasure of the Committee?

IRIZAWA: He would probably be a little suspicious because everybody at the Great Lakes Fisheries Meeting was asking him, "Are you going to be at Lincoln." I don't think it would make much difference.

BAILEY: Well, I would suggest that on this one, if we could, get some news coverage on it. Nominations, Time and Place Committee. Chuck, I think you have that one.

Nominations Committee - Charles Harris, Michigan

HARRIS: The Nominations Committee consists of myself and John Keener of Wisconsin. John and I met Tuesday morning to have breakfast together, and we offer to the Association the ballot of officers for 1977-78 for President. Without John's vote, but my vote carries unanimously, I nominate John Keener as President, Frank Lockard of Indiana as First Vice-President, and following the order of the last five states that had the Association in their state, Ohio comes next. Therefore, we nominate Dale Haney as Second Vice-President. As Treasurer again, we renominate Fred Warders of Kansas again. As for Secretary, it is up to the President to appoint the Secretary, and John did not give me that information. We may have to call him to get that--he hadn't decided yet. The Bylaws state that the incoming President appoints his own secretary. So we don't vote on that office. That completes the report of the Nominations Committee and I move that the report of the Nominations Committee and their recommendations be accepted.

BAILEY: Seconded by Iowa. Any discussion?

BOYCE: Mr. Chairman, I think the motion better clarify Mr. Lockard's name because I noticed there were two Lockards here at the Convention.

HARRIS: Frank.

BAILEY: I think we can add that without amending anything at this point. It has been moved and seconded. Any further discussion, questions? All in favor say aye, opposed no. Motion carried. Fred, unless you have something to add, I assume that what Fred gave the Treasurer's report... Would you like to proceed in giving the Treasruer's Report on audit and status of our treasury.

WARDERS: Priewert gave the complete status of the books. The only thing we will have to watch, Bill, is the Association could become

solvent in a hurry here, and we cannot accumulate money exceeding $5,000. So we are two or three years off at the current rate of expenditures--if it remains the same, something will have to be done.

Old Business

BAILEY: Our Secretary, Larry Morris, says we are in the black as far as we know, but I might have to figure out some way to tap that. Any old business? I have one item, and I am not clear on this particular item. I think it was probably covered by Resolution II which has already been adopted. But last year there was some discussion of establishing a regional furbearers committee. I am not clear on what action was taken on that from last year's minutes; and in discussing it with John, he couldn't recall too clearly on what action was taken.

But there had been contacts made by past President John Popowski with the Iowa personnel to look into this matter. And as I recall, it was a matter that arose from the furbearers committee at the International encouraging the Regional organizations to get the necessary information and bring it back into the Committee of the International. They called Iowa and they were going to look into this then. And, Fred, I can't remember whether you said you would do it or (inaudible) said that Preiwert would make this... Is Bob Barrett here? He was the one who I think really contributed to report back on this and what recommendations might be made on it. Bob is not here? You are not aware of what recommendations they may have? In my opinion, this particular subject is covered by Resolution II in setting up the ad hoc committee to study the formation of various groups such as this. The other matter was a white-tailed deer workshop that was brought in. Again, I feel that this one can be covered under that ad hoc committee and contact the Association on what they wish to do.

GOULDEN: Mr. Chairman, on that matter of the furbearer committee, may I just add one clarification. In Canada there exists a federal (inaudible) committee for the development of humane trapping which has been under way for something in the order of three years now and has made some substantial progress. But I would suggest that the committee formed here would liaise with that committee because they have already developed certain modes of operation and so forth that it would be wise to be clear on so that we can take a (inaudible) attitude of whatever developments are coming forward. The chairman of that committee is Mr. Dale Stewart of our Department. And I would be glad to give you that address.

BAILEY: Would you please make sure that our recording secretary gets that address. Mr. Barrett is in the room now; maybe you can add to this. Again, I feel that this particular subject is being covered by the resolution calling for an ad hoc committee to study the formation of various groups such as this. Bob, do you recall the discussions on the regional furbearers committeee, and you and Al and your people?

As I recall, they had been contacted by past President, John Popowski, to report back to this group of some form of recommendations. Could you give the Association at this time some report and the Association can take at this time whatever action they wish. Because I have a hard time just trying to unravel just where we were on this and I would like to get it clarified as to what we are going to do and how we are going to handle this.

BARRETT: Unfortunately this is one of those committees that apparently was an ad hoc committee that came along a little bit late. And they asked Ron Andres, our furbearer biologist, to chair the thing. And he found out about it in June, which was just about a month ago.

BAILEY: If I may add, this is another good reason for the change in the Bylaws that we had.

BARRETT: He took time to contact a few of the biologists in the other states and it was really a telephone-type thing. They didn't even have time to get together to discuss anything. They made some findings here.

I would like to have this appended to the minutes if that is satisfactory. Rather than make any recommendations--they make no strong recommendations at this time because they didn't have time. So that about constitutes what happened.

BAILEY: We will include these in the minutes, but is there any objection to again deferring any action in setting a committee which may be endorsed by this until this ad hoc group has some opportunity to meet and review the formation of a type of organization and report back?

VESALL: I don't understand that report. Is that recommendations to set up a committee or is that the findings of the committee that was set up.

BAILEY: This is the first time I have seen the report. It is a 3-page report with the...

BARRETT: Maybe I can answer that. That was a report of the so-called ad hoc committee and had our furbearer biologist to chair the ad hoc committee and contact some of the other states. Like I said he found out about it just a month ago.

VESALL: I think it's a good idea to establish a regional furbearers committee in the next adminstration of the Association.

INDIANA: Mr. Chairman, since we haven't seen the report, rather than putting it in the minutes, can't we just have the minutes show that the report will be submitted to the ad hoc committee?

BAILEY: If that meets with your wishes, that's the way we will show it.

HARRIS: When the International met, if I can recall, I received a letter inquiring about what you mentioned, and I couldn't recall just what happened when I was President. But I know we discussed it at the meeting

when I was elected, but then not taking off till January, I didn't act. But at that time as I recall, the International urged us to either appoint a committee or someone as a representative of the Midwest to be a representative to the International Committee. My memory is hazy but it seems at that time that I did appoint one person. But when March came along I went out of office, and it just fell by the wayside.

IRIZAWA: Mr. President, my recollection is that a chap by the name of Duane Pursley from Maryland is chairing or president of the International group. I believe it's the International, because since the inception of the Canadian committee, John Brubecker, who was the predecessor, was a member of that International committee as I recall. Now I can't swear where the other members came from, but I assume they are from various regions of the states. If I understand what you say, it is that International committee which has the desire for regional groups.

BAILEY: That is my understanding. I am having a hard time unraveling this because we have absolutely no correspondence in the files. The minutes of last year are not clear on just what this really was and what action was to be taken, except that apparently John was to appoint an ad hoc group.

I think he did contact your man from Iowa. It is not clear that the appointment was made in the minutes, and when I discussed this with John, he wasn't clear in his memory on just what he had done. So it was one of those things that was difficult to determine just exactly what the origin was. And I have not discussed this with Mr. Pursley. I did discuss it with John Gottschalk on the telephone to see if I could get any clarification at all on this. The first official communication I had was to us as a state agency from Kansas State University requesting us to appoint a committee to work with him. I didn't know where this had all originated or how it originated, and I am still quite hazy on it.

COMMENT: I think Bob Henderson is a member of that International committee and that's the reason he asked this group to have somebody to work with him to represent the Midwest.

HARRIS: Well, we don't do anything until the ad hoc committee provided for in Resolution II reports back and the resolution states that they will make recommendation to the 1978 meeting. We are going to be in an area of thought for another year. It seems that either you or the incoming President should immediately appoint another ad hoc committee to carry on in the meantime or at least one person to represent this Association to the International.

BAILEY: Well I think the latter would certainly be appropriate for the incoming president to appoint a member to represent the Midwest basically with the International Association. I have no strong objection to the appointment based on the committee. The new President will be taking over in 30 days. I would prefer that he be the one to make the appointments if that is the wishes. I still feel that this resolution dealing with the formation of these various groups should be honored and carried through. And anything that we do here in the appointment of committees

that somehwere along the line we put some parameters on just what this is all about and what is to be done--some definite assignment or mission that doesn't carry on for the next 25 years. What is the wishes of the group?

HARRIS: I would move then that we instruct the incoming President to appoint someone to present the Midwest Association to the International Committee in the meantime.

IRIZAWA: Not to exclude ultimately a regional committee under the resolution.

BAILEY: It has been moved and seconded. Any further discussion? Questions. All in favor say aye, opposed no. Motion carried.

STUART: Incidentally, Bill, if something doesn't happen, I will be the new President of the International and right now I am working on the chairmen for the various committees in the International. It would be appreciated if you as states individually and provinces or as a group, if you are going to do that, submit names that you would like to see on groups, like Chuck said the resolution called for, so I can be sure to get them on these committees when they are finally set up. The International was urging that we have the chairmanships pretty well in mind before the conference is held.

BAILEY: Should each of us respond individually, or would you like suggestions at this point?

STUART: Individually as states, I would like to see some member of your department...keep in mind that the President is limited in knowing the people on the staff of the Nebraska department as to who might do an excellent job on a particular committee. And, the way it's been done in the past, they have cards out on the registration desk and you indicate on there whether you want to serve on a committee or not. I think perhaps we would get better participation if it wouldn't always be the Director or Associate Director of the state agency that's serving on a committee.

HARRIS: You got to be careful of those darn cards. I put down one of four committees I would serve on this year and he put me on all four of them.

STUART: I would appreciate it very much if you as individuals or as a group would like to see certain people serve on particular committees.

BAILEY: At this time, as a group, and to assist Russ in his upcoming responsibilities, are there any suggestions on this? Dale, I know you probably have as many trapping problems as anyone I know of, and I suspect that your problems are spinning off on to some of the adjoining states. Are there any suggestions that you may have that this group would wish to endorse as an Association for a member of the upcoming furbearers committee with the International?

HANEY: I would be glad to help any way I can, Bill.

STUART: I don't mean necessarily that I have to have them today, but if you could instruct the incoming president, I think it would be very helpful.

BAILEY: Larry, would you make a note of that one.

PRIEWERT: I think, Chuck, you ought to take a copy of this report to John Keener to see, so that this form is acceptable to him.

BAILEY: Is there any other discussion of this matter? Now am I correct in assuming that the white-tailed deer symposium or workshop then can again be deferred until there is an ad hoc committee to study the formation of this various groups?

MISSOURI: It was my understanding they weren't going to ask the blessing of the Midwest. They were not going to be a member of the committee of the Midwest.

VESALL: Who is setting this up?

MISSOURI: They had a meeting in February of this year in Missouri. They met as deer and turkey workers--and it's no formal organization at all. They would like to hold a workshop every two years.

BAILEY: If that is the case then, it would be up to us as individual states to make a decision on whether or not we participate.

IRIZAWA: Mr. President, I have a question on a problem that has been bugging us. It's in the area of the moose and the ad hoc committee could look at it. (inaudible)... I don't want this interpreted as my opposition to anything regarding enforcement, but I know that the Midwest Association of Law Enforcement Officers, or something like that, is getting further entrenched with a like membership fee to this Association, and I can see other groups doing this, and it is beginning to bother me a little bit because as we were discussing yesterday in the meeting of the audit committee, the legislators tend to look at where we are paying dues and how much.

BAILEY: Well, correct me if someone has been around here longer than I have, but to my knowledge, the Midwest Law Enforcement group is not a part of the Midwest Association nor was it formed under the direction of the Midwest Association. It is another independent group that has more or less been formed. Possibly this should be looked into and be a function of the ad hoc committee that would be appointed to view the situation.

HARRIS: I know our law enforcement chief has written to me and wanted to know why they didn't become a part of the Midwest. I don't know whether he did this on his own or something that came out of one of their meetings.

COMMENT: I think they want in the Association.

PRIEWERT: It comes under that purview of what we have been talking about. I think that committee could look into this.

BAILEY: I guess I shouldn't be entering into some of these discussions but I am going to anyway on this. I honestly feel we are so fragmented in the Midwest between all the various groups that are meeting under some sort of a title of the Midwest that it probably weakens the total. I firmly believe that the Southeastern and the Western are organized in a manner which is probably the most effective. This came up at Snowmass several years ago, and as I recall, Missouri was quite adamant in their opposition in trying to incorporate other groups into the total and that this group should remain quite small-primarily the principal administrators who we have sitting around this table. I feel that if these could be brought together in some way--I know the problem of the Midwest Technical Conference--if these could be brought together in some manner in which we have major meetings in which you people could move off to your portion of the meeting in handling administrative problems. The Pheasant Council could move off to their meeting to handle their problems, Law Enforcement and so on. That ultimately would benefit all of us. I happened to have worked in the Western part and was acquainted with the Western Association and was quite impressed with the way they operated. It's quite different from the way we operate. Again, I wanted to get those comments out because it has been with me for a long, long time. One question to the floor and then we will proceed to new business.

COMMENT: Bill, the Midwest Wildlife Conference at the present time has an attendance that runs approximately 700 people. It has a full three-day agenda. I think that conference might welcome and be helped by any

direction that this group might want to provide. But I think somebody better seriously consider the size of that group and the logistics of expanding it. At the present time it is a very adequate good forum for younger people in the organization to get their feet on the ground and meet representatives from other states. In Michigan it is used to give young people the opportunity to participate. And I am sure it would have to be limited considerably if it was combined with any other group.

COMMENT: In our experience with the Southeast where they have all these combinations is that many of the committees become unfunctional because the committee members are bumped by people of higher rank. So this is the reason for not holding the two together...(inaudible)

BAILEY: By the same token, we are sending three people to three different out-of-state meetings and in many cases it could all be done at the same time.

COMMENT: If you send two men this month to a deer group, then you send 15 people in one group to one meeting...

BAILEY: I might argue that it depends on what administrator you are talking about.

GOULDEN: My only reason for comment here is that this will be brought up and discussed within your committee; I think I should put my position on paper, and that is if you roll this conference together with the one that you just talked about, the Midwest Wildlife Conference, together with the Law Enforcement people, the chances of Manitoba sending more than two people out of the province at any one time are just about nil. So that would probably be need in some other senior...(inaudible) to cut, in which we effectively emasculate the Fish and Wildlife Conference, and I am not sure that we would enhance the Law Enforcement conference. I would speak basically piggyback on what Missouri says--if we want to get some of our law enforcement and our senior but not administratively oriented biologists involved in meetings, then the only way to do that is to have those meetings separated from this meeting. So I would just urge that when your committee does its examination, that you consider very carefully the implications of rolling these all together because I think it will really cause a strain.

BAILEY: Those comments are recorded, and incidentally, the first priority will be the resolutions. But our recorder will be working on the transactions of this particular portion of the meeting as her first priority in getting out the proceedings. So we will try to get these minutes out to you as rapidly as possible and to the new president so that he will have all the comments available that have been made here.

BAILEY: Is there any new business to be brought forward?

HARRIS: I don't know whether this is new business or old busines, but I don't know the reason why Oklahoma and Saskatchewan decided to resign from the Midwest Association. I assume they had reasons; they haven't participated for no reason. But in a letter going to them expressing our disappointment that they did withdraw and that we leave the door open for them to come back anytime they should so desire.

BAILEY: We did send a letter to them in trying to get some formal type of action as opposed to verbal action. I would be very happy to slip the Association's address to them and offer reentry at any time that they wish. I discussed this at some length with George Wint from Oklahoma when we were in Atlanta, and basically their position was that they belong to the Southeastern Association. They have belonged to that for some time, and it was only recently that they joined the Midwest Association. And they took the position that they were going to have to go one way or the other so they stayed with the Southeast. Saskatchewan I'm not sure. It was my understanding from last year that they expressed the desire to go with the Western Association, and this was the reason given. George assured me that it was nothing that occurred within the Association or anything like this. But they had to choose one way or the other--Southeast or Midwest. I visited quite a bit with George on this because it came somewhat out of the blue from my standpoint, and I think yours, Fred. And we didn't know what the problem was so I made a point to meet with George and try to isolate the reasons on why they might have withdrawn.

IRIZAWA: Our position too is very similar because of the territorial thing, with similar reasons like Missouri and Okalahoma. If we so choose, we could cast our lot with the Northeast...(inaudible)... Ontario has said we are members of the Midwest for better or for worse. We do monitor the Northeast at the same time.

HARRIS: Well I am satisfied with the answer. I was just concerned that they may be going independently and not go in with any group. They are important land areas and it is important that they be affiliated with at least one of the regional associations.

IRIZAWA: It's the point that you bring up I think (inaudible) but the only reason they feel they have more kinship with the West, and this bothers me a little bit because from where I see it, they should fit right in with this region. Maybe we should look at why they chose the West. Is it because they have a better program or what is it?

BAILEY: Well frankly, this is the thing that bothered me and that's why I made a point to visit with George. And I haven't had a chance to visit with Mr. Couldwell, but the same thing did cross my mind when we received the letters notifying us of their withdrawal.

COMMENT: I don't know how many of you have had an occasion to detect this; as I understand it, it is a growing trend to consolidate the various state-functioned agency-type meetings such as this. Under the umbrella of the Governor's Confernce, on a regional basis it would completely alter the course our lines of communication.

BAILEY: I think this has been ongoing now for some three to four years, and I noticed in correspondence, Chuck, when you were in office, there was correspondence on these matters. I know there was quite a report prepared for all the agencies in the State of Nebraska, including us. It was presented to the Governor for his information and there are a large number of different associations that are involved throughout state government that he may not necessarily be involved in, in some cases going in opposite directions of the Governor's Conference. Frankly it bothers him, I know this.
HARRIS: Didn't they propose taking over the controls of the International? Remember that two or three years ago at the Governor's Conference. And a letter went out at that time pointing out to them that the National Association was an International Association and the Governor's Conference had no part to play in it. They wanted to endorse legislation before we could support it and they wanted to endorse legislation supporting the (inaudible)...

STUART: Well I personally feel that this Association of the Directors could resist any attempt to become a part of the National Governors Conference because I can see the trend of what is going on in these National Governors Conferences. And whereas a governor in a particular state has no desire to effect changes, he comes back with some new ideas and this is the way they go. In other words, they want more and more of a leg hold over all the departments of state government. And I think if we do that, other agencies are going to push us down

so low that we will be totally ineffective. I think your state health department, state highway department, agencies such as that are really going to really have state water resource management agencies. I hope we resist it.

BAILEY: Are there any other formal items of new business?

HARMON: I got the impression, Bill, that you were going to handle the thing on the Pheasant Council today. Are you proposing that this will be taken up by the action on Resolution II?

BAILEY: Keith, I apologize to everyone here and to this group. I had that in my notes and in making up new notes this morning, that is one I didn't jot down. I said we would handle that under old business this morning. So again I will take preogatives and we will go back to old business to see if the group wishes to do this. Now there is one positive recommendation coming out of Fred's committee--that we correspond with the Pheasant Council at least and acknowledge the work that they have done, and to express our appreication for that work.

PRIEWERT: Obviously they will send a copy to Keener and hopefully it will trigger him to take any action that he deems appropriate. And I hope that whatever he does is in the best interests of the administrators and also the Pheasant Council. I am going to try to write a letter that expresses some of the concerns of yesterday and thank them for their work, and as Bill said, also...where they fit into this system I don't know. But I am going to point out that some of their recommendations were in fact covered in these resolutions. That they weren't left out. And I will send it to Frank and John and then, hopefully, they will keep the thing going.

HARMON: There was discussion yesterday that Russ brought up wondering whether the Council was even functional anymore. And should it in effect be a habitat council.

PRIEWERT: I was going to comment on that expansion too. A lot of your recommendations relate to habitat and a lot of other species associated with it. And they and we should view them and correspond with John on it.

HARRIS: The concern here is that if you go to your habitat committee, then you have got your deer men in there, your grouse men, your pheasant men, and my argument is that these are very separate people. And you aren't going to have everybody that deals with habitat involved.

COMMENT: They could just expand it to upland game.

PRIEWERT: I am just going to call attention to the fact that it came up as Russ mentioned.

BAILEY: Could I possibly make a suggestion here too for your consideration. I feel that we should examine the charges that have been given to this group by the Association. And further, define or refine the function which

we would expect from this group. And I don't think that this can be done quickly around this table this morning. I think there is a good possiblity that once everyone begins to look at this in relation to our present day problems as opposed to what they were 20 years ago. And I'm not sure they have really change all that much except to become more critical now than they were 20 years ago. But there may be some redefinition of purpose of this particular group, and I think that should be studied rather carefully before we just jump into it. And it may be appropriate, Russ, I don't know whether this particular one would come under this ad hoc committee to study the formulation of these or not. but if not, then it may be well if you pass the instructions on to the incoming President, John Keener, to appoint again an ad hoc committee to come back and study the charter of the group and the charges that were issued to them, and any changes that should be made or redefinition of this particular group.

VESALL: I think this is a good approach and with the problems we have with pheasant populations in the Region, it should warrant a special committee I think, to redefine it if necessary.

HARRIS: Years ago when I was in the fun and games division, I remember the American Institute of Park Executives at that time, which eventually joined with the National Recreation Association which is now the National Recreational Parks Association, they had a document written for each of their standing committees which clearly spelled out the purpose of that committee and the charges that had been given to that committee. And every year the president sent that document to the chairman of each committee, and added new charges and deleted charges they had completed. And it clearly spelled out what the responsibilities of that committee was. It was an ideal situation. I have never seen any other organization do that. The International doesn't even do it. It gave the chairmen direction right from the beginning as to what the Association expected him to accomplish during that year.

BAILEY: I think that would be a very good suggestin here, Chuck, and this is what I was referring to in terms of parameters and work they are expected to accomplish. I think it would be good if we could re-examine this, but I don't think it can be done around this table at this time.

COMMENT: Could you assign it to this association...

BAILEY: That's what I am talking about.

HARMON: Bill, I wonder if you need...these committees have been appointed, appointed, and appointed in my five years with working with the Association-- I frankly haven't seen a hell of a lot done in the way of recommendations. It seems to me that you need to go beyond a committee right now, and maybe one, two or three state directors, or whoever it might be, to assign some of their staff say for a two-week period of time, or give them the wherewithal to get together and sit down and work this thing out. The Director may not be able to devote the time to this. I think the Council needs a complete overhaul, and

if that is not possible, a revamping or something. I think it is a decision that is well needed at this point and long overdue. It really needs a good shot.

BAILEY: Well I'm not sure, Keith, but I want to see another conference to define the problem about this and I would think that...

HARMON: I am talking about two or three days where the Pheasant Council could get off somewhere by themselves and really hash this over.

BAILEY: Another thought here--it's an ad hoc committee of three directors or three representatives of this association, I would think that they could then use their staff and attempt to arrive at a definition of problems or purposes, with a report back to this Association. I personally feel it should be someone under the direction of a committee of this group, with them using the respective staffs. And I think everyone here uses their staff to accomplish a lot of these things. And I certainly think it should be under the direction of a committee appointed by the Association.

HARRIS: Well I assume that committee could call on others for any particular subject...

STUART: Mr. Chairman, my Resolution II did not spell out this but I hope that the ad hoc committee which is appointed, and I hope it is a small committee, will contact the states and provinces, take their views back and try to assimilate them into a report reflecting the attitudes of the various states and provinces.

HARMON: I guess I just don't see it quite that way; I don't mean to belabor the point, but getting the views from the various states and assimlating them I don't think is going to get down to the nuts and bolts of the thing. Several people have been involved in the Council over the years and they can be appointed by the committee that you appoint, if you are worried about the committee. I think it's got to be somebody who sits down and completely reviews and overhauls the whole thing; this is going to take time. If those people are going to be able to sit down for an extended period of time and really thrash this out...you can't do this by correspondence or the telephone.

BAILEY: I might add, too, Russ, that I frankly don't view Resolution II as addressing the problem we are talking about now. They are talking about the formulation of these various groups. We have a Midwest Pheasant Council that has been incorporated by this group with a charter and certain charges. As I read Resolution II, it is not addressed to the problem of the Pheasant Council as such. In fact this is a major activity that is done under the auspices and direction of this group. And I think it is time that the entire purpose of this group then be totally re-examined. And I think that might call for a little bit more than Resolution II calls for. If there isn't any disagreement over that, then I think we should possibly instruct John to give this specific assignment to his ad hoc committee then.

STUART: I want it clearly understood by all members that this wasn't aimed at the Midwest Pheasant Council necessarily. The fact is that every year there are new committeees being set up, maybe not with all the states and provinces within the Association, but you start say with Indiana or something like that and all of a sudden we have another committee going. Again, I am not objecting to committees if they are doing something and they are effective. But I think they should be ad hoc committees at all times so that sometime in the future, you can say, "Okay, you served your purpose; let's disband the committee." We have some of this in the International too where committees are going along after what they are attempting to do is totally obsolete because of changing times.

BAILEY: Let's bring this particular one to a quick end then. Is there any desire whatsoever on the part of the group to instruct John to appoint an ad hoc commitee strictly for the purpose of the Pheasant Council and to look at their present charges, and develop some refinement of these charges that are made to them by the Association in addition to the ad hoc committee.

PRIEWERT: If I can ever write a letter out of what has been said here, when John gets a copy, we will let him decide if he wants to put it under the ad hoc committee that's in the resolution too or set up a separate one. He is going to run the railroad next year. I can't take any more notes than I have; but I thought I had it square in my head once, and now I'm not so sure I do. At least the letter will reflect that there is a problem. I can go that far, and then John as got a couple vehicles and the pheasant people should examin their role in the world and see what it precipitates.

HARRIS: And we will see John the first of September; if he wants to talk about it then, he can.

MERWIN: I don't want to muddy the waters, but as I understand Resolution II, what Russ is suggesting is that all these committees be evaluted as to their need. And it seems to be a general concurrence here that there is for the Pheasant Council, and it would probably not be one of those committees, if any are considered, to be disbanded. And if my thinking

and interpretation here is correct, then it would seem that there is no point in going through the ad hoc committee created by Resolution II to reach the Pheasant Council Committee if we are in concurrence saying it needs to be continued and refined. And consequently a second committee to review the procedures and direction of the Pheasant Council ought to be created by the second ad hoc committee.

BAILEY: You articulated it very well--that's what I was trying to say.

STUART: One more thing that I can add to this, and this happened a few years back where the Pheasant Council--lo and behold here came a travel authorization across my desk to a particular city in Pennsylvania to attend the Midwest Pheasant Council. Okay, this same thing could happen insofar as the Midwest Law Enforcement Officers are concerned, because a

few years ago we hosted it in Bismarck and who did we have--we were very glad that they were there--we had a delegation from Hawaii of law enforcement people. Wonderful people, but I just shuddered--hosting a Midwest law enforcement council in Hawaii. And this is the thing that when we set up committees, tech committees of any kind, that there should be some specific direction given to that as to what they should be and what their objectives should be and so on. And I think that we are derelict in that we haven't been doing this.

BAILEY: I assume we should bring this discussion to a close. Apparently there is no motion to direct John or to suggest to John. Fred, we are going to get the minutes out just as quickly as we can so John will have all the discussion available to him--comments and so on.

PRIEWERT: In my letter he will have it all here.

BAILEY: Now the only thing we have remaining is the installation of officers and since our principal officer, John Keener, is not here, I think we can dispense with that except to recognize the First Vice-President, the Second Vice-President, and our old Treasurer who will be back in again. Frank Lockard of Indiana, First Vice-President, and Dale Haney of Ohio, Second Vice-President. Congratulations to all. Some sympathy is extended along with congratulations. And we will get all the information to John so that he can start in accord with our amended Constitution and Bylaws within 30 days of this date. And with that we will adjourn.

PRIEWERT: I would like to metnion if I may--a couple people have expressed an interest in looking at our new fish hatchery. I don't know if you know it or not, Iowa has just built the most modern, intensive warm-water hatchery in the world, and if any of you or your staff want to come by and look at it--we have had several states there already, and I just want you to know that you are welcome. There are quarters there for you and what all. It is in Rathburn in southcentral Iowa. it's an intensive situation where they have got round tanks instead of the long ones. And it's not a ponding situation, it's moving water. We are compensating movement for space. I'm not much of a fishmonger, but it is without question the finest warmwater hatchery in the world. Illinois has been over; when we had the dedication, Okalahoma was there. If anyone is interested, I wanted you to know that you and your staff are certainly welcome to go down there and look the thing over.

BAILEY: I think we will try to make such arrangements to be with you before too long.

PRIEWERT: You don't have to be formal. Let the guys know and let me know; and I was asked here two or three times and thought I would mention it now.

VESALL: Incidentally Mr President, if anyone wants to take a trip up to the North Shore of Lake Superior, we have a new cold water hatchery.

BAILEY: I have already tapped this gavel for adjournment. We will disregard that. There is one thing I did want to do. Our staff, the people who were providing the steaks last night and the cooking, and I swear it was 130 degrees out where they were trying to prepare those steaks, but I would like to personally commend and thank those members of our staff who participated in this. They did an awful lot of work. Dean, you have been trying to get attention here for the last few minutes.

DEAN MURPHY: I had a call from Ken Gambel who is the Mississippi flyway rep; he wanted to announce that the shooting hours have been announced in the Federal Register and as usual, the damn Feds are asking for comment by Monday night. So when you get home, if you haven't received one, why you better (inaudible).

BAILEY: Could I add to that for just one moment. Apparently they thought or did mail out the environmental assessment, but no one received it. It went out yesterday, so again yesterday's was a supplement to what they thought or did mail out previously on this.

DEAN MURPHY: His comment was if you knew (inaudible) comments in there about Monday, you could go ahead and mail your comments, or if you wanted to wait and get them, get them in as quick as possible. The framework on the early reservations(inaudible) will be published in the Federal Register tomorrow without shooting hours. Shooting hours for the early season will be set next week and published the following week.

BAILEY: If there is no further discussion, I am going to adjourn this. Some of you have to check out in 10 minutes.

APPENDIX I

Summary of Active Legislative Bills

Summary of Active Bills
Affecting Fish and Wildlife
Association of Midwest Fish and Wildlife Commissioners
Legislative Committee
July 21, 1977

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REPORT OF LEGISLATIVE COMMITTEE

ASSOCIATION OF MIDWEST FISH AND WILDLIFE COMMISSIONERS

July 21, 1977

The Legislative Committee report this year deals briefly with twenty-four subjects of federal legislation which appear to us to be of principle concern to fish and wildlife agencies. This information is based largely on what was available from activities of the International Association, and on which the Association has an established position, at least in principle.

Committee members are: Jack R. Grieb (Colorado), Eugene T. Mahoney (Nebraska), Arlow P. Boyce (Michigan), Larry R. Gale (Missouri), Dale Haney (Ohio), and David B. Vesall, Chairman (Minnesota).

The Committee's report follows:

1. Resolution Relating to the Regulation by the States of Certain Indian Hunting and Fishing Rights (H.J. Res. 206 - Dingell).

   The resolution declares the state may enact and enforce laws of a regulatory nature concerning the time and manner of hunting and fishing outside an Indian reservation that are for the purpose of conservation, and that are equally applicable to Indians and all other citizens without distinction.

2. Surface Mining Control and Reclamation Act of 1977 (H.R. 2 - Udall).

   The bill emphasizes environmental safeguards. Although it preempts state regulations and supersedes state laws inconsistent with the act or the Secretary's regulations except where state laws or regulations provide for more stringent land use and environmental controls, enactment of the bill would have favorable impact on fish and wildlife habitat through reclamation of abandoned sites and through general slow down on new surface coal mining projects unable to satisfy the strictures of the act.

3. Alaska National Interest Lands Conservation Act (H.R. 39 - Udall).

   The bill would designate approximately 116 million acres in Alaska as parks, refuges, wild or scenic rivers, and additions to national forests. The bill mandates continuation of subsistence hunting and fishing on lands designated as national parks. The Secretary may permit hunting on lands and waters designated as national parks with authority to close the areas for management purposes. State authority over resident wildlife is vague as is question of requirement of state licenses or permits.

4. Land and Water Resources Conservation Act of 1977 (H.R. 75 - de la Garza).

This would require the SCS to conduct a continuing appraisal of the nations land, water and related resources and report to Congress. The SCS is also to develop a national land and water conservation program setting forth the direction for future soil and water conservation efforts, and report to Congress in 1980. The bill recognizes the growing demand on the land, water and related resources of the nation.

5. To Discourage the Use of Painful Devices in the Trapping of Animals and Birds (H.R. 471 - Lehman).

This is one of about a half-a-dozen bills related to anti-trapping. This would authorize the Secretary of Interior to promulgate regulations relating to the trapping and capturing of mammals and birds on federal lands. The Secretary shall make determinations as to "approved traps". An approved trap is one which is designed to trap or capture painlessly or kill instantly. A seven member advisory commission would be established. Only "approved traps" could be shipped interstate commerce. Trapping on federal lands would be prohibited unless specifically authorized, carried out in accordance with the program conducted or supervised by federal or state personnel designed to conserve or control predatory or other wild animals or birds, carried out by means of an approved trap and in compliance with regulations promulgated by the Secretary.

6. Secretary of Army to Delegate to States Functions with Respect to Locations and Plans for Structures, Excavating, Fills, Dredging in or on Certain Navigable Waters of the United States (H.R. 546 - McCormack).

Delegation would apply only to those bodies of water where there is no substantial interstate transportation of commercial goods and only in cases if a state enacts legislation that protects interests of the U. S. and creates a permit program which the Secretary finds at least as effective as federal procedures and standards.

7. Fish and Wildlife Coordination Act Amendments of 1977 (H.R. 582 - Oberstar).

This legislation was prepared by the National Coordinating Committee for Fish and Wildlife and Federal Water Resource projects. It provides comprehensive amendments to the Coordination Act, making the act applicable to water projects which receive federal assistance, strengthening the role of the Secretarys of Interior and Commerce and decisions on measures to conserve fish and wildlife, and broadening authority of the Fish and Wildlife Service and National Marine Fishery Service to transfer funds to state agencies for fish and wildlife studies. It is similar to S. 1727 introduced by Senator Moss during the 94th Congress and is similar also to H.R. 14527 introduced by Mr. Blatnik during the 93rd Congress.

8. Endangered American Wilderness Act of 1977 (H.R. 1207 - Roe)

The bill would designate as wilderness components of the National Wilderness Preservation System 11 new areas in Western United States. It also designates

seven areas for wilderness study in Colorado, Montana, Arizona and California.

9. Fish Disease Control Act of 1977 (H.R. 1649 - Dingell).

The Secretary of the Interior would be authorized to establish programs and regulations for the protection of the fisheries resources of the United States, including the fresh water and marine fish cultural industries, against the dissemination of serious diseases of fish and shellfish. The bill is limited to fish of the family Salmonidae. The Secretary would be required to identify fish diseases and issue regulations to prohibit the control or movement in interstate or foreign commerce of infected fish. He could enter into cooperative agreements with state agencies to develop an effective coordinated fish disease control program. Section 13 calls for a federal study of communicable diseases of non-covered species (including all species of fish not within the family Salmonidae and all species of molousks, crustaceans, amphibians and reptiles) with recommendations to be made to Congress within three years.

10. Federal Animal Control Act of 1977 (H.R. 1651 - Dingell).

The Secretary of Interior would be authorized to provide financial assistance to states for administration within a state of a program to manage predatory and depredating animals. With the exception of sodium cyanide and any chemical substance certified by EPA field use of any chemical toxicant on federal lands and in approved state control programs would be prohibited. If the designated state control agency is not the wildlife agency, the latter must concur in the state program as a pre-requsite to federal assistance.

11. Increase Maximum Amount of Aggregate Payments to Carry Out Conservation Agreements Under the Waterbank Act (H.R. 1653 - Dingell).

Increases total annual expenditures under the federal waterbank act from $10 million dollars in any calendar year to $50 million dollars.

12. To Amend the Migratory Bird Treaty Act to Prohibit the Baiting of Migratory Game Birds During Certain Periods (H.R. 1654 - Dingell and Forsythe).

Makes it unlawful to bait migratory game birds in such manner as described as baiting by the Secretary of the Interior. The feeding of migratory game birds by means of any bonafied wildlife management practices would be allowed. There will probably be no action on this bill until after the study in California now under way is completed.

13. Federal Permit for the Taking of any Migratory Game Bird other than Migratory Waterfowl (H.R. 1655 - Dingell)

This would require a federal $1.00 permit for the taking of any migratory game birds other than waterfowl. The net receipts should be used by the Secretary for the conservation of migratory game birds. Net receipts may

be utilized for research, acquisition of land, and law enforcement activities. Up to 50 percent of the net receipts may be utilized by the Secretary for conduct of research and management activities by the states under contract.

14. To Establish a Pilot Program to Compensate the Persons Who Suffer Loss or Damage from Predation by Endangered Species (H.R. 1966 - Oberstar).

This is similar to H.R. 12554 introduced by Mr. Oberstar during the 94th Congress and rejected by the House after being favorably reported. It would establish a pilot program to pay compensation to persons suffering predation by the Eastern Timber Wolf in the State of Minnesota. The cost of the program will be shared by the Federal Government and the State of Minnesota with the federal share not to exceed 90 percent while such species is listed as endangered or 70 percent of the amount of compensation caused while such species was listed as threatened.

15. Natural Game Fish Stream Preservation Act of 1977 (H.R. 3266 - McCloskey).

The purpose of this bill is to provide federal assistance for the preservation of streams and their immediate environs. $20 million dollars per year would be provided for the next biennium with no more than six percent being granted to any one state. Funds would be used to acquire land and interest in and along the streams. To be eligible a state must control use and maintain fish populations at a level consistent with the natural reproduction and maintenance capacity of the stream. A committee would be established to meet with officials of the state agency responsible for game fish management.

16. Component Parts (S. 212 - Metcalf).

This bill is similar to S. 1294 introduced by Mr. Metcalf during the 94th Congress. It would impose an 11 percent excise tax on component parts of ammunition by amending the Pittman-Robertson Program. Also, one half of revenue from tax on pistols, revolvers, bows, arrows, and the newly covered component parts would be apportioned to the states on the basis of population alone with the proviso that no state may receive more than three percent nor less than one percent of such revenue. The bill restricts use of one-half of the tax on pistols, revolvers, bows, arrows and component parts, such portion estimated at $18.5 million dollars, solely for financing hunter education and/or public target range acquisition, maintenance and operation.

17. Animal Health Research Act (S. 463 - Melcher).

Purpose of the bill is to expand programs of research to improve animal health, to prevent disease epidemics to American livestock and poultry industries and the nation's food supply, and to minimize the occurrence of diseases which can threaten both wild and domestic animal resources. $25 million dollars annually would be authorized.

18. Provides for the Additions of Certain Lands in the State of Alaska to the National Park, National Wildlife Refuge, National Forest, and National Wild and Scenic Rivers System, and for Other Purposes (S. 499 - Jackson

and Hansen).

The bill specifies acreage addition to parks, refuges, national forests, and national wild and scenic rivers. Section 107 provides that sport hunting shall be permitted by the Secretary on lands established as national parks. He shall permit the continuation of subsistence uses of fish and wildlife on areas added to existing national park units or established as new units of the national park system. With respect to both sport hunting and subsistence hunting, provision is made for consultation with the State of Alaska Fish and Game Agency. National wildlife refuges established under the bill would be administered for a number of uses, including fish and wildlife-oriented outdoor recreation opportunities and subsistence uses would be continued.

19. Comprehensive Oil Pollution Liability and Compensation Act of 1977 (H.R. 4570 - Kasten).

This is a comprehensive oil spill prevention package which establishes stringent tanker safety standards in enforcement procedures, and creates an equitable system of liability in compensation. It requires the Secretary of Transportation to publish a list of foreign ships that failed to meet U. S. tanker safety standards. It proposes a liability schedule covering vessels classified as super tankers. It is aimed at preventing oil spills and tanker wrecks in U. S. waters.

20. Authorizes Appropriations for Fiscal Years 1978, 1979 and 1980 to Carry Out the Commercial Fisheries Research and Development Act of 1964 (H.R. 6206).

Funds are authorized to be appropriated to the Secretary of Commerce for apportionment to the states to carry out the purposes of this act.

21. Federal Aid in Non-game Fish and Wildlife Conservation Act of 1977 (S. 1140 - Hart).

This bill appropriates $20 million dollars for fiscal year 1978, $30 million dollars for 1979 and $40 million dollars for 1980 for apportionment to the states to develop and improve programs for the conservation of non-game species of native fish and wildlife. The Secretary of Interior may assist the states by assigning or transferring personnel and equipment to them. Funds will be apportioned to the states 50 percent on the basis of area, compared to the area of all the states, and 50 percent on the basis of each state's population compared to the population of all states, except that no state shall receive less than one half of one percent, and no more than five percent of the total amount apportioned. The state shall prepare and submit a comprehensive fish and wildlife resource management plan to the Secretary with respect to the conservation of the native non-game species under his jurisdiction and that it has adequate statutory and administrative authority and the necessary resources to conserve non-game species of native fish and wildlife. Thirty states would be eligible for up to 75 percent reimbursement of the cost of improved state projects. The non-federal share may be in the form of money, in-kind contributions or real property. The Secretary may advance funds to the states for

financing the United States pro rata share agreen upon. Not more than ten percent of the states' share program costs in any year may be from funds derived from the sale of hunting-fishing and trapping licenses and permits. Not more than 25 percent of a states apportionment may be used for information and education programs, law enforcement and extension services. All federal departments and agencies are authorized to enter into cooperative agreements with state agencies.

22. Steel Shot Regulations

It is anticipated that committees will hold oversight hearings on the steel shot regulations. We can expect that if these hearings are held that State Directors will be notified to submit any questions they may wish to raise.

23. Environmentally Redirect ACP (H.R. 7269 - Harkin, S. 1616 - Clarke).

Provides an updated national direction to the conditions under which the federal government will provide financial assistance to agricultural producers for needed soil, water, wood, and wildlife conservation and pollution abatement on agricultural lands. Emphasizes enduring conservation practices such as: establishing, improving, or sustaining long-lasting protective cover; conserving or safely disposing of water; preventing or abating agricultural-related pollution; providing protection against soil erosion and flood damage; and meeting special regional conservation needs.

24. Natural Diversity Preservation Act of 1977 (H.R. 6286 - Sebelius).

Provides for the identification and setting aside of adequate examples of the full array of unique and representative ecosystems and features for posterity. This legislation would fill the gaps in existing preservation systems and provide an overall policy and action umbrella for advancing comprehensive effort to assure the preservation of natural diversity nationwide.

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APPENDIX II

Resolutions

RESOLUTION I

WATER BANK-RESOLUTION

WHEREAS, mid-continent wetlands continue to be destroyed by private landowner drainage, and

WHEREAS, farmers are presently plagued by huge stocks of grain and poor grain prices and additional drainage of wetland acres would only add to this problem, and

WHEREAS, the water bank program has become extremely popular with landowners in the Northern Great Plains, and

WHEREAS, the water bank program has proven to be extremely valuable to wildlife and especially waterfowl,

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners assembled at its 44th annual meeting this 21st day of July 1977, at Lincoln, Nebraska, urges full and continuous funding in the amount of $50 million as specified in HR 1653.

RESOLUTION II

PROLIFERATION OF COMMITTEES

WHEREAS, there appears to be a proliferation of committees, councils and study groups being organized by the technical staffs of the various state Fish and Wildlife Agencies, and

WHEREAS, these annual meetings of the several committees take valuable time as well as placing a burden on the out of state travel fund of the several departments, and

WHEREAS, the same knowledge may be gained by personal written correspondence between technical people whose work is on a certain species or group of species.

NOW, THEREFORE, BE IT RESOLVED, that the incoming President of the Midwest Association shall set up within 60 days an Ad Hoc committee to study the problem and that this committee be directed to make a report and recommendations at the 1978 meeting of the Association.

RESOLUTION III

RESOLUTION CONCERNING PLANNED WATER DEVELOPMENTS

WHEREAS, certain planned water developments, notably the Cache River in Arkansas and the Garrison Diversion in North and South Dakotas offer serious threats to fish and wildlife resources of continent-wide significance; and

WHEREAS, the President's Office has specifically withheld funding of these potentially damaging projects;

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska herewith commends President Carter for the positive stand that he has taken.

RESOLUTION IV

RESOLUTION CONCERNING WATERFOWL HABITAT MANAGEMENT

WHEREAS, the Midcontinent Waterfowl Management Unit has proposed a program for a three-county area in Minnesota that would test and refine: 1) administrative improvements to make existing waterfowl habitat program more effective, 2) opportunities for developing and implementing new programs, and 3) social, economic, and institutional arrangements to make habitat programs more effective, and

WHEREAS, the information and recommendations developed during this program will be applied through the United States to preserve and develop waterfowl habitat, particularly breeding and wintering habitat, and

WHEREAS, the completion and ultimate success of this proposal depends on assigning two, full-time employees by the U.S. Fish and Wildlife Service to the Fergus Falls, Minnesota Wetland District Office to design, test, and conduct a variety of wetland and upland habitat preservation and development programs,

NOW, THEREFORE BE IT RESOLVED that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska urge the U.S. Fish and Wildlife Service to assign two, full-time employees to the Fergus Falls, Minnesota Wetland District Office to conduct the program designed by the Midcontinent Waterfowl Management Unit Committee, and

BE IT FURTHER RESOLVED, that copies of this resolution be sent to Dr. John Roger P. Rogers, Chief of the Office of Migratory Bird Management; Harvey Nelson, Associate Director, Fish and Wildlife Service, Jack Hemphill, Regional Director, U.S. Fish & Wildlife Service, Minneapolis; Lynn Greenwalt, Director, U.S. Fish and Wildlife Service, Washington; and Robert L. Herbst, Asst. Secretary for Fish and Wildlife and Parks, USDI, Washington.

RESOLUTION V

RESOLUTION CONCERNING CONSERVATION AND ENVIRONMENTAL ENHANCEMENT

WHEREAS, S.240 introduced by Senator Dole and H.R. 7269 introduced by Congressmen Harkin would ammend the Soil Conservation and Domestic Allotment Act, and

WHEREAS, this legislation would direct the Secretary of Agriculture to cost-share with landowners for carrying out enduring conservation and environmental enhancement measures, and

WHEREAS, this legislation would deemphasize federal payments to landowners for carrying out production practices that have dominated the Agricultural Conservation Program in the past, and

WHEREAS, this legislation would permanently restrict the use of funds appropriated for the Agricultural Conservation Program for providing financial and technical assistance for the drainage for filling of wetland types 3 through 20 as defined in Circular 39 or other equivalent reports issued subsequently, and

WHEREAS, the Government Accounting Office has found that "topsoil losses are threatening continued crop productivity: and USDA's programs "have not been as effective as they could be in establishing enduring soil conservation practices and reducing erosion to tolerable levels,"

NOW THEREFORE BE IT RESOLVED that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska urge the enactment of legislation to redirect the Agricultural Conservation Program to include only those practices that are of an enduring conservation and environmental enhancement nature.

BE IT FURTHER RESOLVED that copies of this resolution be sent to Senator Dole and Congressman Harkin and Robert Berglund, Secretary of Agriculture.

RESOLUTION VI

RESOLUTION CONCERNING APPRAISAL OF LAND AND WATER RESOURCES

WHEREAS, the U.S. Senate has passed S.106, the Land and Water Resources Conservation Act, which directs the Secretary of Agriculture to appraise the nation's land and water resources and prepare a program for conservation on private and non-federal lands within one year and every five years thereafter and prepare an annual report which evaluates the program's effectiveness, and

WHEREAS, the Senate bill would require the President to submit reports to the Congress on the appraisal and program along with a detailed statement of policy to be used in framing budget requests for the Soil Conservation Service's activities, and

WHEREAS, the House version (HR.75) would effectively eliminate the requirement to make the appraisal, design a program, and submit annual reports

NOW, THEREFORE BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska urge that the House and Senate Conference Committee appointed to resolve the difference in the bill select the wording in S 106 that requires a national appraisal, development of a program to meet specific soil and water conservation needs, and submission of annual reports on the effectiveness of the program, and

BE IT FURTHER RESOLVED, that S. 106 be amended under Section 8 to read "The Secretary shall transfer out of appropriations or other funds made available to complete studies, investigations and appraisals required to carry out the purposes of this Act such funds as are necessary to enable State Resource agencies to carry out all or part of any such studies, surveys and appraisals; and

BE IT FURTHER RESOLVED, that copies of this resolution be sent immediately to Senator Herman E. Talmadge, Chairman of the Senate Committee on Agriculture, Nutrition and Forestry; Congressman Thomas S. Foley, Chairman of the House Committee on Agriculture; and Mr. James E. Giltmier, Professional Staff Member for the Senate Committee on Agriculture, Nutrition and Forestry.

RESOLUTION VII

RESOLUTION CONCERNING TAX CREDITS FOR LANDOWNERS

WHEREAS, wind erosion losses and declines of wildlife habitat have reached alarming proportions in many areas, and

WHEREAS, HR 1489 (Grassley, Iowa) would provide for establishing wind erosion and wildlife habitat areas by amending the Internal Revenue Code to provide tax credits to landowners incurring expenditures for such areas,

NOW, THEREFORE BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska urge that the Congress pass legislation that would provide a tax incentive for landowners establishing wind erosion and wildlife habitat areas, and

BE IT FURTHER RESOLVED, that both the House and Senate Committees on Agriculture add to the language of such legislation a provision for tax credits to landowners who also maintain existing areas of wildlife habitat and wind erosion such as farm woodlots, farm shelterbelts, field windbreaks and natural woody vegetation,

BE IT FURTHER RESOLVED, that copies of this resolution be sent to Congressman Grassley; Senator Herman E. Talmadge, Chairman of the Senate Committee on Agriculture, Nutrition and Forestry; and Congressman Thomas S. Foley, Chairman of the House Committee on Agriculture.

RESOLUTION VIII

RESOLUTION CONCERNING MISSOURI RIVER BANK STABILIZATION AND NAVIGATION PROJECT

WHEREAS, the Missouri River Bank Stabilization and Navigation Project was authorized by House Document 214, 76th Session, 2 March 1945, and

WHEREAS, this project resulted in the loss of approximately 200,000 acres of fish and wildlife habitat including wetlands, marshes, quiet backwater areas, open flowing water areas and terrestrial habitat in various stages of succession, and

WHEREAS, the Fish and Wildlife Coordination Act of 1958, Public Law 85-624 requires federal agencies to consider equally fish and wildlife resources with other project purposes in their water resource development projects, and

WHEREAS, this Act was made retroactive to all projects less than 60% complete as of August, 1958, and

WHEREAS, the Missouri River Division of the U.S. Army Corps of Engineers has determined that the Missouri River Bank Stabilization and Navigation Project was approximately 58% complete as of August, 1958, and

WHEREAS, the Missouri River Diversion of the Corps of Engineers has therefore acknowledged that the provisions of the Fish and Wildlife Coordination Act are applicable to the Bank Stabilization and Navigation Project, and

WHEREAS, the Kansas City and Omaha Districts of the Corps of Engineers are now conducting studies to identify and analyze alternatives to mitigate fish and wildlife losses associated with the Missouri River navigation project, and

WHEREAS, these studies will result in a recommendation to Congress for authorization of specific mitigation measures,

NOW THEREFORE BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska strongly endorses this effort on the part of the Corps of Engineers to seek measures to mitigate fish and wildlife losses which occurred as a result of the Missouri River navigation project, and

BE IT FURTHER RESOLVED, that the Midwest Association of Fish and Wildlife Commissioners requests that the Corps of Engineers seek authorization from Congress for measures that will realistically mitigate fish and wildlife losses which occurred as a result of the Missouri River navigation project, and

BE IT FURTHER RESOLVED, that the Corps not restrict the fish and wildlife mitigation program but further recognize all other detrimental aspects of the project.

RESOLUTION IX

RESOLUTION CONCERNING PARTS OF MISSOURI RIVER
BEING DESIGNATED RECREATION RIVER

WHEREAS, the Missouri River extending from Gavins Point Dam to Ponca State Park, Nebraska is one of the few remaining reaches which is unchannelized and unimpounded, and

WHEREAS, this reach of the river and its immediate environs has valuable pristine and pastoral qualities, and significant fish and wildlife resources, and

WHEREAS, as a segment of the travel route of Lewis and Clark in their western exploration, the area has substantial national historic significance, and

WHEREAS, it has substantial values for boating, canoeing, fishing, hunting and other related recreational activities, and

WHEREAS, it is desirable to preserve the fish and wildlife habitat and the social, cultural, historic, recreational and educational values associated with this reach of the Missouri River for the enjoyment by present and future generations, and

WHEREAS, this reach has been recommended for designation as a National Recreation River under the Unbrella Study conducted by the Army Corps of Engineers,

NOW THEREFORE BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska does hereby strongly urge the Department of Interior to recommend to Congress that they designate the Missouri River from Gavins Point Dam, to Ponca State Park, Nebraska, as a recreation river under the provisions of the Wild and Scenic Rivers Act (P.L. 90-542), and

BE IT FURTHER RESOLVED, that a copy of this resolution be forwarded to the appropriate officials of the Department of Interior and of the United States Army Corps of Engineers.

RESOLUTION X

RESOLUTION CONCERNING FARM PROGRAMS

WHEREAS, the Farm Programs of the U.S. Department of Agriculture could play a strong role in maintaining and improving wildlife populations on farm and ranch lands, and

WHEREAS, historic farm programs have included provisions which benefit both wildlife and their varius users, and

WHEREAS, there is a need for increased incentives for, and payments to, landowners to carry out needed soil, water and wildlife conservation measures,

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska encourages Congress to retain, strengthen and implement Title 10 of the 1973 Farm Bill so as to maximize wildlife benefits.

BE IT FURTHER RESOLVED that Congress provide in new farm legislation a tax incentive to private landowners who devote lands to wildlife production, and

BE IT FURTHER RESOLVED that the Association supports funding of at least twenty-five million dollars to carry out those practices which have direct and significant benefits to wildlife.

BE IT FURTHER RESOLVED, that copies of this resolution be sent immediately to Senator Herman E. Talmadge, Chairman of the Senate Committee on Agriculture, Nutrition and Forestry; Congressman Thomas S. Foley, Chairman of the House Committee on Agriculture; and Mr. James E. Giltmier, Professional Staff Member for the Senate Committee on Agriculture, Nutrition and Forestry.

RESOLUTION XI

RESOLUTION CONCERNING MANAGEMENT OF
MIGRATORY SHORE & UPLAND GAME BIRDS

WHEREAS, over five years of cooperative effort by representatives of the wildlife agencies of the 50 states, each Canadian Province, the International Association of Fish and Wildlife Agencies, the Fish and Wildlife Service and many others resulted in a published National Plan for improved management of migratory shore and upland game birds, and

WHEREAS, this National Plan documents what needs to be accomplished and the amount of funding required to implement the programs and projects necessary to maintain many shore and upland bird populations and their habitats throughout North America.

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska, urges the Congress of the United States to provide increased financial support for the Fish and Wildlife Service and the individual states through grant projects and the Accelerated Research Programs to implement or enhance management and research projects recommended to properly manage migratory shore and upland bird populations and to increase public enjoyment of these valuable resources.

RESOLUTION XII

RESOLUTION CONCERNING STANDARDIZED PROCEDURES IN EVALUATING WATER RESOURCES PROJECTS

WHEREAS, the Fish and Wildlife Service is developing a procedure for the evaluation of fish and wildlife for use on water resources projects at the behest of the several states and certain national conservation organizations; and

WHEREAS, such a procedure will ensure the systematic use of a standardized procedure rather than the use of a number of procedures;

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska, urges the completion of the Fish and Wildlife Evaluation Procedures and that the final procedures be approved by the National Coordinating Committee.

RESOLUTION XIII

RESOLUTION DEALING WITH THE INDIAN PROBLEM

WHEREAS, the International Association of Fish and Wildlife Agencies has on two separate occasions (1974 and 1976) called the Congress's and Executive Branch's attention to serious depletion of the fishery resources that is occurring in such important fisheries as the West Coast Salmon Fishery and the Lake Superior Trout Fishery by virtue of judicial determinations that Indian tribes possess superior wildlife resource rights and that the state regulation may be exercised only in situations where the resource is seriously threatened, and

WHEREAS, such judicial determinations have frequently terminated responsible sustained yield management of the fisheries resources and provided no resolution to the management problems; and

WHEREAS, additional claims are being asserted by Indian tribes to secure superior hunting and fishing rights and to obtain immunity from state regulation for all hunting and fishing activity on reservation lands;

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska urge Congress and the Executive Branch to recognize the seriousness of these issues and as a matter of high priority enact legislation to modify Indian hunting and fishing rights so states can conserve their resources and that these rights be equally applicable to all citizens.

RESOLUTION XIV

RESOLUTION CONCERNING TOXICANTS AND PESTICIDES

WHEREAS, there continues to be considerable use of known, dangerous and harmful pesticides, herbicides and toxicants which when released into the environment cause toxic or harmful effects on the natural biota and are potentially harmful to humans; and

WHEREAS, the control of the manufacture and use of these substances of necessity must be a national action and concern; and

WHEREAS, such action and concern must rest with a federal agency; and

WHEREAS, there are grievous economic losses and potential human suffering resulting from uncontrolled use of and release of such substances as kepone, mirex, polychlorinated biphenols, dioxan and others;

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska memorialize Congress and the Environmental Protection Agency to maintain and toughen its enforcement stance on environmentally toxic substances.

RESOLUTION XV

INTRODUCTION OF HARMFUL SPECIES

WHEREAS, importation and interstate shipment of potentially harmful species of fish and other aquatic organisms is now not adequately approachable through federal law; and

WHEREAS, harmful species and diseases pose a threat to endemic species which cannot now adequately be met by existing law; and

WHEREAS, amendments to the Black Bass Act appear to offer potential for improving existing law;

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting this 21st day of July, 1977 at Lincoln, Nebraska, reiterated the position of the International Association of Fish and Wildlife Agencies that the U.S. Fish and Wildlife Service make recommendations to Congress for improvement of the Black Bass Act that would meet defined problems.

RESOLUTION XVI

RESOLUTION CONCERNING UTILIZATION OF EXCESS PROPERTY

WHEREAS, in cooperation with State Fish and Game Departments, the Fish and Wildlife Service has conducted a program of excess Federal personal property utilization for Sport Fish and Wildlife Restoration, Anadromous Fish Conservation, and Endangered Species grant programs, and

WHEREAS, the excess property program has proved a valuable addition to these grant programs, primarily in expanding capabilities for accomplishing approved work, and

WHEREAS, recent changes to the Federal Property and Administrative Services Act of 1949 will prohibit the transfer of excess personal property by the Fish and Wildlife Service to grantees as of October 17, 1977, and

WHEREAS, there is a precedent for continuing such programs because grantees in National Science Foundation projects and Cooperative Forest Fire Control programs will still be eligible to receive excess personal property,

NOW, THEREFORE, be it resolved that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual conference in Lincoln, Nebraska on this 21st day of July 1977, draft (in cooperation with the Fish and Wildlife Service) appropriate legislation, amending the Federal Property and Administrative Services Act of 1949, to authorize the transfer of excess personal property (including title) without cost to grantees by the Fish and Wildlife Service for use in approved or approvable projects.

RESOLUTION XVII

RESOLUTION CONCERNING AGRICULTURE CONSERVATION PROGRAMS

WHEREAS, it would be very beneficial to pheasants and other wildlife, if nesting cover established under the Agricultural Conservation Program of the U.S. Department of Agricultural would be left undisturbed for two full years following the year of establishment, and

WHEREAS, such a practice would also be very beneficial as a soil and Water conservation measure, and

WHEREAS, U.S. Department of Agriculture representatives do not feel that it was the intent of Congress, when passing enabling legislation, to allow federal cost-sharing beyond the year of establishing practices under ACP,

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska, encourages Congress to pass the legislation which will direct the U.S. Department of Agriculture to offer ACP practices which will provide federal cost-share to landowners for establishment, and continued maintenance of undisturbed wildlife nesting cover, for at least two years following the year of establishment.

RESOLUTION XVIII

FUNDING FOR REGISTRATION OF FISH CHEMICALS

WHEREAS, regulations of the U.S. Environmental Protection Agency and the U.S. Food and Drug Administration require that all registrations for chemicals used in fishery management be reviewed and registered in the near future, and

WHEREAS, information to support registration of some of the most widely used chemicals is lacking, and

WHEREAS, needed fund associated with supporting the registration of fisheries chemicals is inadequate, and

WHEREAS, the absence of such chemicals would seriously restrict the capability of those involved with fishery management.

WHEREAS, such a restriction would result in the decline of this renewable resource which would have an adverse effect recreationally and economically.

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977, at Lincoln, Nebraska urges the U.S. Fish and Wildlife Service to obtain information for the registration of needed fisheries chemicals.

RESOLUTION XIX

SUPPORT OF U.S. SENATE BILL 1140

WHEREAS, modern wildlife biology recognizes that management of all species is necessary for a healthy wildlife resource, and

WHEREAS, public interest is increasing in the management of nongame fish and wildlife for nonconsumptive uses, and

WHEREAS, user-based support has proven to be a successful method of providing for sound wildlife management in North America,

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners, assembled at its 44th annual meeting, this 21st day of July, 1977 at Lincoln, Nebraska, supports U.S. Senate Bill 1140, sponsored by Senator Gary Hart of Colorado, PROVIDED THAT the bill be amended to include a manufacturer's excise tax on certain outdoor recreational equipment and supplies, the revenues from which would be used solely for the support of nongame fish and wildlife restoration and conservation programs.

RESOLUTION XX

AVAILABILITY OF THERAPEUTICS AND PROPHYLACTICS
USED TO CONTROL FISH DISEASES

WHEREAS, the Association of Midwest Fish and Wildlife Commissioners is gravely concerned about the lack of approved therapeutics and prophylactics necessary for assuring good health and survival of fish reared in public and private hatcheries; and

WHEREAS, the Great Lakes Fishery Commission has already urged the U.S. Food and Drug Administration to develop promptly and thoughtfully guidelines within which the registration of "minor use" drugs and chemicals can be expedited; and

WHEREAS, the American College of Veterinary Toxicologists and the American Association of Industrial Veterinarians directed specific attention to the need for the Use of such therapeutics and prophylactics at their March 14-15, 1977 symposium held in Washington, D.C. entitled, "The Need for More FDA-Approved Drugs for Minor Uses in Food Animals"; and

WHEREAS, the U.S. Environmental Protection Agency has required the review and reregistration of therapeutics and prophylactics used to control diseases in United States fish hatcheries; and

WHEREAS, the Fish Disease Control Committee of the Great Lakes Fishery Commission has assembled the following list of agents required to prevent or control fish diseases and parasites to enable adequate survival of fish reared in hatcheries:

Furanace
Furacin (or suitable substitute, i.e., Nifurprazine)
Sulfamerazine
Terramycin
Dylox
Formalin
Diquat
Cooper Sulphate ($CuSO^4$)
Formalin/malachite green mixture
Malachite green (or suitable substitute)
Hyamine 3500 (or suitable substitute)
Betadine (or other suitable iodophor)
Potassium permanganate ($KMnO_4$)
MS-222 anaesthetic
Chlorine/sodium thiosulfate; and

WHEREAS, the Association recognizes productive fish hatcheries as critical to the support of the Great Lakes sport and commercial fishery activities valued at 450 million dollars annually; and

WHEREAS, the Association views maximum survival of the fish produced as fundamental to good resource stewardship, conservation of energy and maximum efficiency;

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners assembled for its 44th annual meeting this 21st day of July, at Lincoln, Nebraska, urges the U.S. Food and Drug Administration, the U.S. Environmental Protection Agency, Congress, and other appropriate governmental public and private interests to recognize the need for the use of appropriate fish disease control therapeutics and prophylactics to obtain maximum survival of healthy fish from hatcheries, and to pursue all possible means to assure availability of these essential agents through expedition of proper registration.

RESOLUTION XXI

SUPPORT OF H.R. 582, A BILL TO AMEND THE
FISH AND WILDLIFE COORDINATION ACT

WHEREAS, the Fish and Wildlife Coordination Act is in need of updating; and

WHEREAS, the National Marine Fisheries Service of N.O.A.A. in the Department of Commerce should be included under the Coordination Act; and

WHEREAS, the amendments to the Fish and Wildlife Coordination Act will assist the states in doing a better job on all cooperative Federal-State projects by:

1) Requiring any federal agency directly or by federal technical assistance or financial assistance through a grant, loan or contract to ascertain the effects of the action on fish and wildlife.

2) Specifying that "no federal agency or department can use estimates of wildlife losses in monetary terms as a justification for rejecting or adopting any recommendations."

3) Requiring post construction evaluation and modification of projects when the agency having administrative authority requests it.

4) Requiring that any revenue obtained from the use and operation of such waters, lands, or interests shall be available to such State agency or as appropriate to the Secretary of Interior as refuge receipts to supplement, but not supplement any funds required for the management of fish and wildlife.

5) Requiring that project budgetary requests include estimated funds needed to carry out all studies, investigations and reports needed during the fiscal year of the budget.

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners assembled at its 44th annual meeting this 21st day of July, 1977, at Lincoln, Nebraska, supports the amendments to the Fish and Wildlife Coordination Act contained in H.R. 582; and

BE IT FURTHER RESOLVED, that copies of this resolution be forwarded to the Secretary of Interior, to the Secretary of Commerce, to the Chairman of the House of Representatives Committee on Merchant Marine and Fisheries, and to the International Association of Fish and Wildlife Agencies.

RESOLUTION XXII

ANTI-TRAPPING LEGISLATION

WHEREAS, the harvest of wild furs and their use have been a part of this country's culture since colonial times; and

WHEREAS, ever since those times we as a nation have, to an ever greater degree, altered the wildlife-human relationship; and

WHEREAS, trapping is not essentially considered a sport but rather a means of cropping a valuable wildlife resource; and

WHEREAS, annual harvest of wildlife species, while it may not always be a biological necessity for the good of the species, does constitute good and proper management and use of a renewable natural resource; and

WHEREAS, annual populations exceeding the carrying capacity of their habitat are often reduced in numbers through intra-specific strife, disease, starvation, and accidents, all of which can be agonizing and painful to the animals involved; and

WHEREAS, unharvested populations of some species such as muskrats fluctuate drastically to their own detriment; and

WHEREAS, controlled harvests of muskrats serve as an excellent tool for good management of the marsh ecosystem which not only benefits muskrats but also waterfowl by providing optimum varieties and densities of marsh vegetation; and

WHEREAS, there are no practical alternatives to trapping as a method to control, regulate, or harvest surpluses of most fur-bearing animals; and

WHEREAS, overpopulation of certain fur-bearing animals can be detrimental and become an economic hazard to farming, forestry, and other wildlife; and

WHEREAS, if no approved method of animal control is offered, people who suffer damage, sometimes amounting to considerable economic loss, will sometimes use inhumane methods; and

WHEREAS, steel traps can be used in such a way as to catch and kill humanely; namely, in water sets for aquatic species, including muskrats, mink, beavers, and otters, which sets drown the captured animals, and with proper upland use of appropriate-size traps; and

WHEREAS, certain so-called killer traps such as the larger conibear-type are dangerous and can be fatal to humans and usually would seriously maim or kill dogs and other domestic animals;

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners assembled at its 44th annual meeting this 21st day of July, 1977, at Lincoln, Nebraska, opposes state or federal legislation such as Federal S. 2084, H.R. 8784, and H.R. 13629 which in effect aim to abolish leghold and steel traps completely; and

RESOLUTION XXII, Cont.

BE IT FURTHER RESOLVED, THAT THIS Association approves the use of leg-hold steel traps used properly in water sets designed to immediately drown the captured animals, or used in upland sets of a proper size and tended regularly; and

BE IT FURTHER RESOLVED, that copies of this resolution be forwarded to the appropriate members of the U.S. Congress and to the International Association of Fish and Wildlife Agencies.

RESOLUTION XXIII

RESOLUTION CONCERNING SEC. 404 of PL. 92-500

WHEREAS, members of the Association of Midwest Fish and Wildlife Commissioners are cognizant of Section 404 of Public Law 92-500, The Federal Water Pollution Control Act, and

WHEREAS, we fully support the legislative intent of the Federal Water Pollution Control Act, which includes Section 404 regulating the filling and disposal of dredged materials in all U.S. waters and associated wetlands, and

WHEREAS, if Section 404 is implemented now by the U.S. Corps of Engineers, it will duplicate comparable efforts of the state, waste scarce tax dollars and, in general, result in confusion and unnecessary delays, and

WHEREAS, we further believe that this important program should be carried out in such a way to avoid undue federal regulation or duplication of existing comparable state efforts.

NOW, THEREFORE, BE IT RESOLVED, that members of the Association of Midwest Fish and Wildlife Commissioners support President Jimmy Carter's position on natural resources expressed in his Environmental Program, especially his recommendation to amend Section 404 Federal Water Pollution Control Act to authorize the states to assume responsibility for carrying out major portions of this program. Further, we recommend that no state be delegated such authority unless such state proclaim laws, rules and program which meets or exceeds minimum requirements of Section 404.

RESOLUTION XXIV

RESOLUTION COMMENDING STATE OF NEBRASKA

WHEREAS, the State of Nebraska has exhibited exemplary characteristics as the host agency of the 1977 meeting of the Association of Midwest Fish and Wildlife Commissioners

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Commissioners assembled at its 44th annual meeting held from July 18th to the 21st, 1977 at Lincoln, Nebraska express to Governor Exon and to the Nebraska Game and Parks Commission and staff their appreciation and gratitude for the excellent arrangements and hospitality in hosting this annual meeting.

RESOLUTION XXV

RESOLUTION EXPRESSING APPRECIATION TO GOVERNOR EXON

WHEREAS, the Association of Midwest Fish and Wildlife Commissioners held its 44th annual meeting in Lincoln, Nebraska, and

WHEREAS, Governor Exon addressed the group assembled during the open session,

NOW, THEREFORE, BE IT RESOLVED, that the Association of Midwest Fish and Wildlife Commissioners wish to express their appreciation to Governor Exon for his appearance before the Association, and

BE IT FURTHER RESOLVED, that we commend him for his vigorous support of professional wildlife management and the role of hunting, as expressed in his address.