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Association of Midwest Fish and Wildlife Agencies

51st Annual Meeting
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Hannibal, Missouri
July 16-19, 1984

51st ANNUAL MEETING
ASSOCIATION OF MIDWEST FISH AND WILDLIFE AGENCIES
JULY 17-20, 1984
HANNIBAL, MISSOURI

ATTENDANCE

ARKANSAS: Steve Cole, Game & Fish Commission, Little Rock
Karen Cole

COLORADO: Jerry Blackard, U.S.Fish & Wildlife Service, Denver
Walt Graul, Division of Wildlife, Fort Collins
Robert Towry, Division of Wildlife, Denver

GEORGIA: Jim Gebhard, Quail Unlimited, Augusta
Dee Gebhard

ILLINOIS: Mike Conlin, Dept. of Conservation, Springfield
David Kenney, Dept. of Conservation, Springfield

INDIANA: Ed Hansen, Division of Fish & Wildlife, Indianapolis
George Sekata, Dept. of Natural Resources, Indianapolis
Dee Sekata

IOWA: Gerry Carmody, Fish & Wildlife Service, Davenport
Allen Farris, Conservation Commission, Des Moines
Larry Wilson, Conservation Commission, Des Moines

KANSAS: Bill Hanzlick, Fish & Game Commission, Pratt
Kent Jackson, Fish & Game Commission, Pratt
Fred Warders, Fish & Game Commission, Pratt

KENTUCKY: Carl Kays, Dept. of Fish & Wildlife, Frankfort
Don McCormick, Dept. of Fish & Wildlife, Frankfort

MICHIGAN: Ronald Skoog, Dept. of Natural Resources, Lansing
Marian Skoog
Edward Mikula, Dept. of Natural Resources, Lansing
John Urbain, Dept. of Natural Resources, Lansing
Hank Vondett, Dept. of Natural Resources, Lansing
Shirley Vondett

MINNESOTA: Harold Benson, Fish & Wildlife Service, Twin Cities
Harvey Nelson, Fish & Wildlife Service, Twin Cities
Jim Ross, Fish & Wildlife Service, Bloomington
Larry Shannon, Dept. of Natural Resources, St. Paul

MISSOURI: Department of Conservation, Jefferson City

Ken Babcock
Betty Rose Babcock
Robbie Briscoe
Allen Brohn
Emily Brohn
Mac Johnson
Stan Michaelson
Robert Miller
Teresa Miller
Dean Murphy

Terry Dally
Janis Dally
Clarence Daniel
Dan Dickneite
Pat Dickneite
Bill Dieffenbach
Ray Evans
Carole Evans
Gordon Farabee
Larry R. Gale

Bette Murphy
Donna Pasley
Charles Purkett
Linda Rodick
Tom Troughton
Dick Vaught
Jerry Vaught
Jim Henry Wilson

David Gates, Army Corps of Engineers, St. Louis
Ed Stegner, Conservation Federation, Jefferson City

NEBRASKA: William Bailey, Game & Parks Commission, Lincoln

OHIO: Max Duckworth, Division of Wildlife, Columbus

VIRGINIA: Gene Ludlow, Bureau of Land Management, Midland

WISCONSIN: Jim Huntoon, Division of Natural Resources, Madison
Ester Huntoon
John Keener, Division of Natural Resources, Madison
Louise Keener
Steven Miller, Division of Natural Resources, Madison
Shirley Miller

WASHINGTON DC: Tom Melius, NRA, Washington D. C.
Bob Nelson, U. S. Forest Service, Washington, D. C.

Preparation of minutes—Linda Rodick, Missouri Department of Conservation

Table of Contents

	Page
Welcome Larry R. Gale, Director, Missouri Department of Conservation	4
Keynote Address Mr. G. Andy Runge, past member, Missouri Conservation Commission	6
Late Developments in Computerized Wildlife Information Gene Ludlow, Bureau of Land Management	14
The UMRCC—Conservation Through Cooperation Norm Stucky, Missouri Department of Conservation	21
USFWS Ten-Year Action Strategy for the Upper Mississippi River Harvey Nelson, U.S. Fish and Wildlife Service	26
Fishing in Missouri with Emphasis on the Mississippi and Missouri Rivers Stephen Weithman, Jr., Missouri Department of Conservation	32
Understanding the Main Channel and Main Channel Border Habitats of the Upper Mississippi River Gail Peterson, U.S. Fish and Wildlife Service	38
Active Management of Mississippi River Bottomland Forests Roger Bollman, U.S. Army Corps of Engineers	45
Where's the Dirt? And, Who Cares? Gerald D. Seinwill, Soil Conservation Service	52
MDC-SCS: A Partnership in Resource Development Russell C. Mills, Soil Conservation Service	59
Robert D. Miller, Missouri Department of Conservation	68
Report of the Treasurer	75
Resolutions	77
Business Meeting	85

GENERAL SESSION
TUESDAY, JULY 17, 1984

Dean Murphy: Good morning. Before we start the conference, we have a few housekeeping chores here. First, I hope everybody has their name tag. That is going to be very important during the conference since you won't get lunch without it. Also, it is to be used for the door prize drawings. On the back of the name tag is a number which will be used for the drawings. We have a few changes. I think most of you have heard that the river is too high to land a barge at the Shanks Area so we will be going to the Shanks Area on Wednesday afternoon by bus instead. The dinner cruise tonight is on. The buses will be out in front at 6:00 p.m. The refreshment stand we had last night will open between 4:00-5:00 p.m. this afternoon to give you time to clean up and get back on the bus. Tomorrow afternoon at 2:00 p.m., we have a video tape called the "Real Law of the Jungle" which was on 20/20 and we'll have the video viewer upstairs in the "River Room" which was the overflow eating room last night. At noon, lunch will be served through the partition there. The lady has asked that we all go in and sit down. It will be a buffet and she will take it by table to go up to the buffet, and keep everything in order. I think that covers all the announcements at this time. I would like to turn it over to Director Gale to officially open the conference.

Larry Gale: Thank you, Dean. The 51st Annual Meeting of the Association of Midwest Fish and Wildlife Agencies is called to order. We are certainly glad to see you all here. It is a good turnout. Last year over at Lexington, we told you we'd give you a warm welcome. It's not as quite as warm this year as last year and I'm sure we are all thankful for that but it is a good turnout and we are very happy to have you here. I hope everybody had plenty to eat and drink last night. If not, I'm not going to blame the staff. It was your own fault. We'll have the roll call.

Dean Murphy: These are not in alphabetical order because the transactions last year were not in alphabetical order. So we will start with Ohio. Will you come forward please and accept one of these books.

Larry Gale: We have a book of Wildlife Drawings by Charley Schwartz for each of the Directors or the ranking member from the state. You will later find a sample of a local product in your room, hopefully. If you don't find it, let me know.

Dean Murhpy: Would you as you answer the roll call, give your name so we know whose room to put the sample in.

Ohio	Max Duckworth, 264
Michigan	Ron Skoog, 149
Indiana	Ed Hansen, 160
Kentucky	Carl Kays, 232

Wisconsin	Jim Huntoon, 341
Iowa	Larry Wilson, 269
Missouri	Larry Gale
Ontario	
Manitoba	
North Dakota	
South Dakota	
Nebraska	Bill Bailey, 246
Kansas	Bill Hunzlick, 284
Saskatchewan	
Colorado	Walt Kraul, 249
Illinois	Dave Kenney, 287
Minnesota	Larry Shannon, 251

Dean Murphy: That completes the roll call.

Larry Gale: Thank you, Dean. We have a quorum and the meeting will proceed. It is a real privilege for me to introduce our keynote speaker, Mr. G. Andy Runge. He is a practicing conservationist and a close personal friend and served with great distinction as a member of the Missouri Conservation Commission. Andy was born in Springfield, Missouri. He attended Northwest Missouri State College and graduated from Central Methodist College in Fayette, Missouri. He served in the United States Army, including a year in Korea, after which he attended the University of Missouri Law School and then joined a firm in Mexico, Missouri, of which he is now a ranking partner. He was appointed to the Missouri Conservation Commission in 1973 and served a six year term. It is doubtful if any Commissioner had better rapport with the staff. He was a very capable spokesman for all environmental issues. His farm is a model of wildlife management and it produces excellent populations of quail, rabbits, squirrels and turkey. He is a real gentleman both in the office and in the field, and it is a pleasure to hunt with him. Andy is a member, founder and past President of the Missouri Prairie Foundation and he is a Board Member and 2nd Vice President of the Conservation Federation of Missouri. He is active in almost every conservation organization in the state and just to mention a few, the Ruffed Grouse Society, Ducks Unlimited, and the Wild Turkey Federation. He played a key role in the Design for Conservation campaign from its very beginning to the passage by the people in 1976. He is active in the Methodist Church and a devoted family man. The Runge's have three children and I believe his wife Winnie is here. I haven't seen her come into the room yet. She will be around later in the morning. I wanted to pay her a compliment because she packs the best lunch a quail hunter ever ate and I want to pay tribute to her while she is here but maybe she will get the word. Andy bears more responsibility than anyone else for my appointment as the Director of the Missouri Department of Conservation and I hope nobody will hold that against him because everyone is entitled to at least one mistake. It is my great pleasure to introduce Mr. G. Andy Runge.

G. ANDY RUNGE
KEYNOTE

Murphy, it was nice of you to get those room numbers but I think they already have Gideon Bibles. Ladies and Gentlemen, good morning and welcome to Missouri or Missourah. You may, with some justification, be puzzled as to how we might get anything done in this state when for 160 years we haven't been able to even agree on the name of the place. As if that weren't bad enough, the athletic department at the state university has now established a phonetic spelling for one of our simplistic cheers which the football and basketball crowd seem to master and is putting out a bumper strip - MIZZOURAH - which no doubt will soon be appearing on freshmen term papers.

You will, I'm sure, while you are in Missouri, have an opportunity to sample our well-baited tourist traps; many of them will bring you pleasure. I hope that you will also have some occasion to savor the natural assets of this state. We have impressive mountains. I think we can get by with that (perhaps not - Colorado is here), or hills, as you may choose, caves, beautiful springs, and clear Ozark streams that are fed by them. We have great impoundments which offer a variety of recreational pursuits, bountiful farms, lovely prairies and millions of acres of productive woodland.

But in spite of all this, you may notice that we are not perfect. We are told, for example, that only one other state in the Union loses more topsoil to erosion than do we. Our tax support of public institutions is something less than outstanding and if you are transported very far over our road system, you may jarred into a realization of why the Highway Department isn't getting its share.

Like all of the states from which you came, our state has much of which to be proud and many, many problems. Problems can be overwhelming. When I was on the Commission and Larry was dealing with some particularly taxing problem, I always liked to cheer him up by reminding him that things really couldn't be too bad in a state that neither alligators or timber wolves. Some of you will get more out of that than others - those of you with timber wolves.

If we do indeed have something unique in Missouri, in my opinion, it is our Department of Conservation. As a Missouri native of about the same age as the Department, as an active member of the Citizen Conservation Movement, and as a former Commissioner, I want to consider this morning how our Department reached its present stage of development and what is unique about the Missouri situation, in the hope that the observations may be of some value to you as you consider your own programs.

The history of natural resource management in Missouri is typical in that we experienced the cycle of abundance, then exploitation,

followed by dispair. As in most states, after the plundering ceased, we made feeble efforts through a patronage-ridden fish and game department to do something, usually confined to spasmodic enforcement of seasons and limits imposed by the Legislature and to the indiscriminate stocking of exotics. As elsewhere, the situation here continued to deteriorate and in the mid-1930s, a citizens group was successful in initiating and obtaining passage of a Constitutional Amentment which established the Missouri Department of Conservation. That amendment placed fish, game and forestry resources under the control of a bipartisan Commission with four members serving six-year staggered terms and further provided that hunting and fishing license fees and other monies generated by the Department's activities would be used for the Constitutional goal of the Department of Conservation and, in the words of the Constitution, "for no other purposes."

The supportive citizen organization evolved into the Conservation Federation of Missouri, our state's affiliate with the National Wildlife Federation, and it was this organization that successfully repelled attempts to repel the enabling amendment and snuff out the life of the fledgling Department. The Missouri Department of Conservation experienced great success during its first 30 years, but in the 1960s it became apparent that if the Department were to discharge its Constitutional obligation to control, manage, restore, conserve and regulate the bird, fish, wildlife and forestry resources and, particularly, if it were to meet the increasing demands of a non-consumptive clientele, that new funding would be required.

A long steady process followed by an agonizing initiative and election campaign resulted in establishment of the now well-known Design for Conservation, financed by the dedicated revenue from a 1/8 of 1% sales tax. It is not my purpose today to deal with what I like to call the mircle of the Design, neither its conception or its fulfillment, but rather I would like to emphasize what I believe to be three key aspects of the Missouri conservation experience; three aspects which made the Design possible.

First and foremost has to be funding. Several days ago, I heard a politican analyst talking about the 1984 election. He said that there would be three principle issues and that they were the economy, the economy, and the economy. When one seeks the keys to Missouri's success in conservation, they might be found in funding, funding, and funding. It is a dependable, secure funding base that has made possible the employment and retention of professionals throughout the Department. It has enabled us to purchase lands and to plan and develop them for the long term, to conduct continuing research, and through the efforts of dedicated personnel, executing meaningful programs to establish credibility with Missouri citizens.

Second is the relationship between the Department of Conservation and those citizens. The loyality and respect of its constituency is and always has been a special source of strength for the Department. For example, both the Missouri Department of Conservation and the Conservation Federation of Missouri have throughout their existance emphasized cooperation as in their mutual best interest. Employees of the Department of Conservation are sought out as active participants or advisors in Federation projects and also, indeed, participate in and lead many of the worthwhile resource oriented organizations of this state. Missourians know that the personnel of the Department will courteously listen and will have a well reasoned response to any concern. Indeed, the Department seeks citizen input and through its educational and informational programs, inspires and instigates citizens' participation. Obviously, there are differences of opinion, sometimes occasioned by the variance in the approach of the professional in the Department from that of the weekend fisherman, birder or outdoorsman. All of you know that any individual who hunts or fishes has definite opinions about such things as squirrel seasons, clearcutting, and bass limits, but in this state, 50 years of skilled, professional direction has inspired confidence in the expertise of the Department.

Organized resource interest groups in this state long ago learned that visible squabbling over management issues can only injure the causes we all wish to promote. We have, therefore, I believe, been very successful in avoiding the public bloodletting that can polarize public opinion and destroy confidence in the conservation effort. It would be well to note, I think, that the Conservation Federation of Missouri, with over 30,000 members, and the organization that is by far the largest and most influential in this state, has on only one occasion in 50 years gone public on a major policy difference with the Missouri Department of Conservation.

The third special strength of the Department, I believe, is the Commission. All of us who have served as Commissioners tend to have an exaggerated opinion of our own importance to the program and some of you may have noticed that about Commissioners. Several years ago I was put into my place when, unbeknownst to those who were participating, I slipped in the back of the room at the Fish and Wildlife Conference at the University. When I came in there was a program in progress put on by a group from Indiana. They were giving a presentation on how to use audio visual materials in delivering professional papers. In order to express in terms that everyone there could understand the level at which these programs had to be presented, the speaker of the day said that the presentation must be and I quote, "so simple that even a commissioner could understand it."

Some of you may have had occasion to question the strength of the commissioner system for it certainly has its weaknesses. Indeed, I have often voiced the concern that should the Missouri system

ever be done in, that would occur because of the action of the Commissioners and certainly not because of anything that our professionals did. There will always be an occasional Commissioner whose background or commitment proved inadequate. There will be those who can not see politics in its proper perspective, those who are more concerned with the exercise of perceived power, than responding to Constitutional direction. The temptation is strong to interfere with administration. The Missouri Constitution requires of its Commissioners only as follows and I quote in part from Article 4, Section 40A of the Missouri Constitution. "The control, management, restoration, conservation and regulation of the bird, fish, game, forestry, and all wildlife resources of the state, including hatcheries, etc., and the administration of all laws pertaining thereto shall be vested in a Conservation Commission consisting of four members appointed by the Governor, not more than two of whom shall be of the same politican party, but members shall have knowledge of and interest in wildlife conservation."

When our fine information group puts out the publicity release that follows the appointment of each Commissioner, it tends to polish the outdoorsman image. The facts may be somewhat less impressive but I know of no Commissioner who has come to his appointment without some knowledge or experience as hunter, fisherman or outdoor recreationist. Political affiliation is mentioned prominently in our Constitution but it is, after all, the appointing Governor who decides who is a Republican and who is a Democrat. Needless to say, when a Republican Governor appoints a Commissioner of the Democratic faith, the usual response of the Democratic party leaders is, "I never heard of him" and likewise when the situation is reversed.

Being a Conservaiton Commissioner in Missouri is one of the most prized and sought after positions in our state and that, in itself, is a great compliment to the Department. There are literally hundreds of applicants for every appointment and only an appointment to the Board of Curators of the state university ranks anywhere close in popularity. In the early years of the Department, leaders of the organized conservation movement were sometimes appointed, apparently because of their leadership positions. In the present day, Commissioners are usually appointed who are persons with close personal or political ties with the Governor and yet somehow it works. Contact with the professionalismand integrity of the Missouri Department of Conservation rubs off on even the most mediocre Commissioner. It is impossible to regularly consider the awesome achievements of the past and the imperative for enhancement and continuity without being responsible and most Commissioners do make some real contribution during their terms. The drones fortunately have been few enough and are generally counterbalanced by good men. All of us leave the Commission reluctantly and with a sense of having participated in something important, something that really made a difference.

Some feel that four Commissioners is not enough and it is true that that small number can sometimes work a hardship on the Commissioners themselves but the small number tends to focus responsibility and since Missouri Commissioners are of necessity appointed at large, the tendency towards regionalism is reduced to manageable levels. Because of the nature of the Missouri system, Commissioners appointed by one Governor will hold over under another Governor, tend to be cussedly independent to the benefit of the Department yet the Commission is always in touch with politican reality through its latest appointees. To say that politics is not involved in this system would be a mistake.

The Legislature, the Governor and, to a lesser extent, other state and local elected and appointed officials influence the Department in many ways. Revision of the State Criminal Code affects the enforcement powers of our enforcement people. Changes in the state pension system affect all of our personnel and administrative rules of the Governor's Office continue to affect us in all ways. The Department properly maintains relationships with state officials through Commissioners and through other personnel but, make no mistake about it, the Missouri Department of Conservation is, under our Constitution, genuuinely independent. The combination of dedicated funding which expands with economic growth, a sound Commission system and a superb relationship with its constituency has insured one of our Nation's best conservation programs.

Interested persons from other states have asked me how they might achieve what Missouri has and I frankly cannot give specifics, for each state has its own situation and must form its program to match its heritage and its relationship to its constituents, as indeed we did here. Missouri's conservation effort has reached this point because a majority of our state leadership community has trust and confidence in the Missouri Department of Conservation. There could be no clearer evidence of this than the passage of a sales tax for conservation in the midst of a anti-tax revolt. The Department's credibility stems from nearly 50 years of good service from dedicated professionals in the Department. The support of the public brought the sales tax in 1976 but it has also meant that Missourians have accepted regulation changes brought about through research and expanded understanding. Changes such as the hunting of deer, the imposition of crappie limits, the opening of a hunting season on ruffed grouse after 80 years closure, a change in the opening date of quail season, which Ed Stegner, who's here, says it's like changing the date of Christmas, and has even allowed the Department to survive a few embarrassments such as coturnix quail and multiflora rose.

As each of you consider what has been done in this state, I again recall for you the key ingredients: adequate, dedicated funding, a sound Commission system relatively free from partisan politican interference, and the confidence of those make up the constituency. With all of these, or even a substantial portion

of them, the conservation program cannot fail, without them, it will be difficult to succeed. Thank you very much.

Larry Gale: Thank you very much, Andy, for that fine message. May we recognize Mrs. Runge in the back of the room. At this time, I want to deviate just a moment to recognize Steve Cole. Steve, of course, is a past President of this association, as I am sure you all know. He recently transferred to the State of Arkansas, our border on the south, and in view of his past service to this association and the interest in attending this meeting, I would like for him to have one of these books of Wildlife Drawings.

Larry Gale: A couple of years ago, our Commission suggested that we should take a look at our public relations program. We hired a consultant from St. Louis who had had considerable experience with industry as well as some governmental organizations and he made an intensive study of this program, interviewing a number of staff members as well as private citizens and other people that he had contacts with. He told us that he thought that we were doing a good job with meeting and getting the message across to the hunters and fishermen and that we were doing a reasonable job of contacting the non-hunting, non-fishing group, such as the bird watchers and people who were interested in forest management, and that sort of public, but he said there is a big group of people out there that we are not reaching at all. These are people who have no personal interest in the resources and he said, these people are now paying the conservation sales tax, and in order to maintain the public support necessary to continue that funding program, we need to make a stronger effort to contact what he called audience C.

He had several suggestions as to how this might be done and one of them was to develop a motion picture, that would be on a different theme from the ones that we had produced in the past. Most of these were definately targeted on the resource. I'm sure most of you have seen our bobwhite quail and wild turkey films and some of the others, but he said what we need is something that presents the broad picture so we endeavored to do that. Charley and Libby Schwartz had retired. We hired a new man to be in charge of the motion picture activity and gave him this task of producing a film that would show what conservation in the broad sense is all about, show the beauty of the state, the things that we are trying to preserve, and see if we could reach the general public. Gary Griffin was the man that we hired to do this and he wrote the script for this film and did the filming and editing along with Tom Troughton who is here with us today. The introduction is by Marlin Perkins, who I'm sure you will all recognize, and the response to this film has been excellent. It took third place in the Houston Film Festival. It was a finalist in the American Film Festival, which is considered the Academy Awards of 16 mm films, and it won the Teddy Award, which is named for Teddy Roosevelt, as the best ecology documentary of 1983 at the National Outdoor Travel Film Festival. We'll have the film

now and I hope you all will enjoy it. If you have any comments afterwards, we certainly would be interested in your reaction to this kind of a film, keeping in mind the purpose for which it was produced.

Film "Guarding Our Living Environment"

Larry Gale: We are hopeful that this film will create greater interest in wildlife and other natural resources on the part of the general public and therefore more support for the program. Our Cinematographer and Assistant Editor Tom Troughton is back here. I wonder if you would care to say anything, Tom, about this film differs from some others that we have made or any other comments that you might have.

Tom Troughton: As you said earlier, it wasn't as much biology. We tried to show all the different habitat types we have. We've had comments from people other states that they didn't realize Missouri had so much variety. We really didn't get into the swamps too much but everything else was covered. That took about a year to film. We've had real good reviews, a lot of acceptance. It has been helpful for our field people to show. The idea was to reach people that didn't even know about the Department and I think it's done that.

Larry Gale: You can see that it is a low pressure sales job but I think it has been effective. The reception has been excellent. Do you have any questions or comments about it?

???: What was the cost, Larry, the cost to produce, any ball park figures?

Larry Gale: I could get it but maybe Tom can help.

Tom Troughton: I really don't know. We got at least 10,000 feet of film and probably more. We had three people working full-time. This was our main project for about a year; the salaries, a lot of travel, motel expenses, trips to the lab, etc, would have to be included. We spent about a week in Memphis and did the final work and we stayed with the film the whole time. I really don't have a hard figure.

Larry Gale: I couldn't even give you a guess off the top of my head. Of course, one thing that enters into it, we usually have at least two, maybe as many as three or four things going on at the same time and you take a certain amount of footage that may be intended for one film but sometimes much of it is usable for another one so it is kind of hard to split it out. I'm sorry, I just don't have a figure.

Tom Troughton: We are working on a farm and wildlife film now. A lot of scenes from here will probably be used in that and public service announcements, television spots, things like that. We'll get a lot of mileage out of that footage.

Larry Gale: Any other questions? Dean, do you have some announcements?

Dean Murphy: Coffee and cokes are at the back of the room.

Larry Gale: We will take a break. We are a little bit ahead of time, not very much, but we will reconvene at 10:30.

Dean Murphy: The first item of business will be the drawing for door prizes. Bill Dieffenbach of our staff will handle it with Linda Rodick doing the the drawing.

Bill Dieffenbach: Dean, I don't think they trust me to draw even though I don't have a number in the hat, as none of the Missourians have numbers in the hat. The first thing we are going to draw for is the framed butterfly print that came from Dee Hamon in St. Louis. The first lucky winner is No. 117. The next drawing will be for the picnic pack from Anheuser-Busch and two books on everything you wanted to know on how to kill and cook that came from Remington. The picnic pack is one of these gismos that whoever gets it, if you take it apart, you're on your own because there are 9,,472 pieces in there and they don't go back together right because I took one apart and then had to take a second one apart to learn how to put the first one together again. We'll draw for that right now, No. 101. You get to try to put it together. Now, for one of the biggies. This is a compound bow from Hoyt Eastman (?) in Bridgeton, Missouri. It is a fine instrument, No. 151, once again, No. 151. Okay, it's gone.

Dean Murphy: Is that anyone's wife?

Bill Dieffenbach: Sure, everybody stand up. How about mine. Okay, we're going to do it again, No. 112. He lucked out. Second choice ain't bad. You look like you might know how to use that too. The next door prizes will be given at the beginning of the afternoon session at 1:30. Thank you. Thank you Linda. We need an honest face up here.

Dean Murphy: The first paper for the second session here is "Late Developments in Computerized Wildlife Information" by Gene Ludlow. Gene worked in the Indiana Department of Fish and Game as a Conservation Agent, Farm Game Habitat Biologist, and Manager of the LaSalle Game Management Area. He worked with the Bureau of Land Management in southern Utah as Recreation and Wildlife Specialist; was a member of the BLM Alaska Pipeline Division Resource Team; held BLM district positions in Alaska, Nevada and Miles City. He is currently the Senior Wildlife Biologist in the Branch of Renewable Resources in the Eastern States Office of the BLM in Alexandria, Virginia and has geographical jurisdiction over 31 states each of the Mississippi River.

LATE DEVELOPMENTS IN COMPUTERIZED WILDLIFE INFORMATION

GENE LUDLOW
Wildlife Biologist
Bureau of Land Management
Alexandria, Virginia

Thank you, Dean. I'll give this report as a member of the International Association's Wildlife Computer Systems. Ray Evans is Chairman of that committee. Late developments in computerized fish and wildlife computer systems are a cooperative state and federal approach. It is a project that was originally developed by the Eastern Energy Land Use Team and put up in Pennsylvania in 1979 and this was the forerunner of many of the projects that are ongoing today. It has several attributes that I think you would find would fit into your program. Computers, as we all know, are something that anyone over 40 kind of shudders to hear about and I was probably a prime example. I have gotten to the place where under Dr. Kushwa's tutorage, I can get things out of it.

One of the benefits of this program is that it covers all species of wildlife within your state. It is a state program. It is one that you're responsible for by law. It is particularly effective if you have a non-game program that is new. I am sure that most of you do not have a lot of information on the Junco and some of these non-game species. With this computer data system, you'll have the opportunity to have this available for anyone who wants to use it. There are unlimited fields. Pennsylvania developed 125 fields and Missouri just finished theirs up with 250. It is your option as a state agency to put in that system what you want. If you want harvest data, which many of the states put in, it's in there. It is not restricted to size. One of the big values of the system is that it is all referenced. If you want to know who said that, you find it out right there in the system. It is built on publications. It is built on PR reports. It is built on field people's reports that you have on file.

Each of the states moved into this program when the Fish and Wildlife Service was hit with budget cuts and the Eastern Energy Land Use Team was desolved. We found that we needed people who originally developed the program to be available because computerized fish and wildlife systems are new. It is a brand new field. There are no experts to go to in your own department in most cases. You can find computer experts that will tell you how they run. They'll tell you what kind of hardware you need but there are not many people that can say that these are some of the fields of information that you will need to perform your job. We established, in cooperation with the Virginia Game and Inland Fisheries Commission and the Corps of Engineers, a team called the Multi-State Fish and Wildlife Information System at Virginia Tech University. This was set up under the head of Dr. Charles Kushwa, who was the developer of the original system. Their only function is to help states that would like to put up a computer data system. I would like to accent that it is to help states. Having worked in the State of Indiana, I am quite familiar with

the relationship with those feds and state people and I want you to understand that it is a state system and our assistance does not tell you what to do. Our help will be to say that this is the way Missouri did it. This is the way Illinois is doing it. This is the way Pennsylvania is doing it and then you say "This is the way that I would like to do it in my state." We think that this will save you a lot of time and a lot of money by avoiding pitfalls that other states have experienced.

One of our big functions, if you will, is to go to a state who is thinking about entering into this type of system and give a demonstration of the Pennsylvania system. Up until last week, Pennsylvania was the only state that had a system for all the species of wildlife and now I am happy to say that Missouri has finished theirs and they are one of the first states that has done it on their own. We give a demonstration and, if you would like, we will do it for your state people on one day and then on the next day, we will do it for your federal agencies. The advantages to having the federal people there, in addition to looking for some help if you need it in financing, is that there is no need to have a beautiful system if you don't have users. Why have a system that is going to sit there if you don't have people using it. Another advantage of having the feds involved is that frequently you can lean on expertise. You can get some help on different species. Sometimes you can get some help just on doing work; secretarial, data entry, and so forth.

If you would like, we will help you set up a Steering Committee based on these users, these state and federal users. The Steering Committee works under the head of your representative. You have 51% of the vote. If for some reason you don't like what the Steering Committee recommends, it doesn't go in there. We haven't had that problem to date. The biggest problem we have had is that everybody gets down and decides they want a huge program and we have to weed some of it out. Another advantage of the project is that we can tell you, as I mentioned before, mistakes that have been made in the other eleven states. There is no reason to re-invent the wheel. There are just certain things that you can do to cut it down and shorten up your time to get it in.

Another advantage, of course, is that we can tell you what other states are using in the way of hardware packages and this, to me, is still a foreign subject. I can read it off of paper but other than that, I don't function too well. Dr. Kushwa and his assistant, Dr. Cop, have experience in that and we can at least direct you where to go. You determine your own course, you decide what you would like to have and where you would like to go with it. Some of the functions that the Multi-State Project have done are that we sponsored a national workshop in December which had over 200 people in attendance. We have put out a newsletter, which I'll give you a copy of in a few minutes, in which we have attempted to pull together some of the things that are happening. The Multi-State Project has compiled fields of information.

We've gone and said, "These are the fields of information on this particular subject and what's more, we'll show you that in a newsletter. We sponsor and assist with a state meeting each year of those that are involved and this year we will meet in Tennessee. This is a field level meeting which you say, "We're having a problem with this." "How did you solve it?" It is a working group and I'll mention the dates on that. You may have some people who would like to attend this meeting.

Another function of the Multi-State Project is to train your users. Your going to have someone that you need to head up your data base. Your going to have to have someone that says to your people in the state, "This is the way we operate," and the Multi-State Project will train these users. Another big project that we are looking at, and we are optimistic about receiving funding, is to make a composite list of all the species that are being put up in the eleven states. What we are looking at is over 2200 species but we think that if we take all the white-tailed deer information from Missouri and Pennsylvania and Illinois and Virginia and look at their references and, of course, we can't do the distribution or the status, if we look at the references involved and a log of this other information, you won't have to dig that out. We think that we can probably cut the time in half by giving you this deposit and we are fairly confident that we will be able this within six months to a year.

I was interested in Runge's remark about finances and so forth and that is what my job is. Charley is the person with the know how in the computer systems. I'm the fellow who gets together and says, "Okay, if you need some funding, I'll help you get it." This is not like federal funding. This would be through a simple cooperative agreement with my agency and yours. We would operate with money from another agency in what is called pass-through funds. We have had a semi-annual meeting at the Washington level. We found out that a lot of the field biolgists in SCS, a lot of Fish and Wildlife people, a lot of district biologists with the Bureau of Land Management, don't have the authority to obligate money and it is hard to break it out of the budget. But we have been quite successful by going to the Washington level and informing them that this is what we are trying to do in your particular state. Then when the SCS biologist or BLM biologist asks for funding, at least they are aware of the program. This has been very interesting to me because at this Washington level meeting that we hold semi-annually, we invite all the people in the area who have any association with wildlife with the various states and we have had 27 different federal agencies come to this meeting. The last one we had, Bob Nelson gave us an excellent discription of what the Forest Service has in their wildlife habitat systems throughout the Forest Service. With this information, we are able to develop sources for when the state goes on. In other words, if you work with your Forest Service, here's some information that you will find. To date, the Bureau of Land Management, the Office of Surface Mining, the Fish and Wildlife Service, the Corps of Engineers, the Forest Service, and

the Soil Conservation Service have all contributed funding to some of the states in developing this program.

Some of the uses of the data base, and there are a number of them, are a review of environmental impact statement and environmental analysis. One of the biggest uses we are finding now is in planning. We are working very closely with Mr. Conlin in Washington who is a PR/DJ planning specialist. We are looking to come up with an outline whereby states can comply with your federal aid planning requirements by using the data bank. Missouri is using this for their wildlife management planning. We talked to Dave Urich and it has been very useful within Missouri. Several states use it for modeling. Pennsylvania and Missouri both use it for their HEP programs. Missouri is using it for their Habitat Suitability Indexing (HSI) but you notice that I said that they use it in these systems. It is not a system such as HEP. It is a storage system. It is a library full of information on all the species that you want to put in there.

I have a copy of a newsletter that we will pass out at this time and also I might mention that we have some handouts outside the door on a table just across from the registration desk. We're not going to go through this page by page but if you will turn to pages 4-6, this will give you the status of the states as of last May. One update, we might go real quick, Missouri now has 734 species that are loaded and in the computer. If you have wildlife work in Missouri, you will have no problem by getting with Dave Urich who will set you up with an access code and be able to use Missouri's system. You see a list of several other states and I'll update it: Illinois now has over 200 species available. Illinois has a GIS that works with theirs - this was their decision of the software to go. Page 8 mentions the state meeting which I had mentioned earlier that will be held in Tennessee. If you do have someone in your agency in your state that would like to attend this meeting, they can either contact me, Charley Kushwa, down at the Multi-State Project, or Cliff Whitehead in Tennessee's wildlife program.

Earlier I mentioned some of the fields of information. Let me run some of them briefly and, as I mentioned before, there are 125 fields. Several of the fields are comment fields. Under every field, there is a space for comments. If there are conflicts, such as in taxonomy, that someone in your state differs with what is used professionally, here's where you enter it. If you have someone that would like to say something in this space that he is quite confident of, this comment field is the place for it. In Pennsylvania, and these are some of the fields we think every state should have, group, common name, scientific name, percent of counties, and when you pick up a copy of the handout out there, this list is in there. Past, future, latitude and longitude, or by section, range and township, if you would like to put it in that way. This is normally done for important species, species that you would be managing and have quite a

large request for information. Rabbits, pheasants, and so forth you couldn't put in with that. Quad sheets, eco-region, potential natural vegetation. Several of these you might say, "What do I need potential natural vegetation for?" There are several systems in other agencies, Forest Service, EPA, and so forth that use these. If you have put up your wildlife system and access it with a terminal and use potential natural vegetation and the Forest Service uses potential natural vegetation, they can take a terminal right next to yours and being as you use the same terms, you can cross-reference all your information with theirs. We urge you to use standard definitions, American Fisheries Society, because you can cross-walk your information with others. On the last page is an order blank for the Proceedings of the National Workshop. These are available from VPI and you can order them if you would like a copy. This is more or less a review of the state of the art of the different agencies and we have a copy out on the desk. At this time, I would like to introduce Mr. Charley Kushwa. Charley, if you would stand up. At this time, we will attempt to answer any questions you might have about what we have talked about and I can assure you in this group there's probably not many experts on wildlife computer systems so if you have a question you would like to ask, I'm sure it will be received in a mode that someone else would probably like to hear it also.

Bill Bailey: Gene, how many of the participating states participated also in the Natural Heritage Program with the Nature Conservancy and, if so, have there been several overlaps between this and the program that they were involved in?

Gene Ludlow: We haven't had a lot of overlap because most Heritage Programs, as an example, I believe North Carolina had 23 species they dealt with. We put this in as a separate part of your system and in Tennessee we've exchanged information and most states agree, we'll give you what we have on those points that you haven't over here. This does not take the place of a Heritage System. We don't feel that there is conflict and I think that the nearest thing to a conflict would be for funding. I think that both systems would be looking for funding.

Ray Evans: I would like to add, Bill, that in Missouri we are putting up both systems and we see absolutely no conflict between the two systems, especially when it comes to wildlife species. Heritage systems tend to deal with only the unique and rare ones, whereas the systems Gene talked about deals with all species. We figure in Missouri we have some 750 wildlife species and the Heritage Program deals with about 20 of them, along with other things in the Heritage Program. The Heritage Program is more geobased. Here is where some of the association support for these reasons. The Fish and Wildlife data system contains different fields of information than that of the Heritage Program. We don't view them as competing at all except for funding.

Gene Ludlow: Carl Kays, do you know of any conflict in your system? We haven't heard of any in Kentucky. Tennessee hand in glove.

Carl Kays: I don't believe so at this point. (Inaudible)

Gene Ludlow: We had a meeting in Illinois, I guess what three weeks ago, Charley, and we had a representative from the Conservancy sit in on the Steering Committee. I think an early on offer to cooperate is what makes a basis for whether it goes or not. I think they need to see what it involves, what is going on, versus finding out and seeing it as a threat. But there are two programs. There is no question about that. Was there a question anyplace else?

Al Farris: Can you give us an idea of the cost estimates and what the states have put into this. Maybe a range of what they have put into their programs, their systems?

Gene Ludlow: Ray, have you ever tried to come up with what you've got invested?

Ray Evans: Off the top of my head, probably $100,000. It was expensive for us simply because we were the first ones to do it. No other state had ever done this before and so it was more expensive for us. I would guess that in the next year or two, states who put it up will be able to use data that is in other systems, that is information about species, and should be able to do it for half that.

Gene Ludlow: A lot of it depends on how many references you want to put in there for the white-tailed deer. This is part of it. Another depends on how many fields of information -- do you want population estimates or do you just want harvest data for five years. The fields of information, of course, helps run the cost up and it varies but, like I said, I think we can cut the cost rather drastically with a composite list.

Bill Bailey: I'd like to ask one more question. Recognizing that funding is critical, you may have to make choices. Of those states that have participated in both the Natural Heritage Program and this program, which do you recommend as the most utility to their state?

Gene Ludlow: I'll ask you this same question. Do you think you can manage fish and wildlife with 100 species or do you think you need to manage it for all the species in your state. Do you have a non-game check-off program?

Bill Bailey: We will have.

Gene Ludlow: Okay, you're going to have to look at some non-game work and this has been very effective in replying to the people who contribute the money saying, "We are doing something for non-

game and are now considering all these other species where we have been accused of in the past of just looking at game species."

Bill Bailey: If I am interpreting your remark correctly, you think this would have some advantages over the Natural Heritage Program if you had to make a choice.

Gene Ludlow: If you are going to deal with all species. If you only want open spaces, if you are only looking for natural areas to acquire, if you are only thinking of certain plants and animals that are rare, then your Natural Heritage Program will do it. I think it is your philosophy but once more, I can't see why you would have to cut out either one.

Bill Bailey: Funding, if you only have so much. You have to make a choice somewhere.

Gene Ludlow: So far we have been very fortunate in as much as we have not not a single one of our states that has had to stop and wait for help on funding. I think other than the salary of the contact of a Data Base Manager, if you will, other than that, most states haven't put anything in it. Virginia is the only exception. They have put in PR/DJ money and non-game wildlife money, about $50,000 a year. But funding hasn't been a big problem because we've moved it out. We are looking now at trying to get at a higher level. Like I said, we started down with the field biologist. We're up at division heads. We are trying to get in at the director level and get some guarenteed funding. I know SCS went into their budget and asked for $250,000. They didn't get it this year but we are hopeful that we'll go back in. So what we do is work with your field people in your state. Work the Washington end and look for $10,000-$20,000-$30,000, whatever we can get over a number of years, to keep it going. This is why your Steering Committee is important, because you have people working with you, with your project, and can see that they're going to have something they can use when they get done.

Al Farris: In other states, have they put together programs where their Department of Transportation and maybe the Corps of Engineers, and whoever else has put money into the development. Is that what you are saying, actually paid for the development of the system?

Gene Ludlow: In Tennessee, the Corps of Engineers put $10,000 into the Environmental Section in our River _____ System. They have now indicated that they will put more money into the wildlife part of it. What happens is at your Steering Committee meeting, you mention you need funding at this time. We start the ball rolling and if you would like to, there is no reason that you cannot appoint a person and actually sit and wait until you see some help with your funding.

Dean Murphy: Thank you, Gene. Since this meeting is in Hannibal which sits on the banks of the Mississippi River, the Planning Committee thought that it would be appropriate if some emphasis was given on the program to the problems and resources of this river so the rest of the day will be devoted to papers on this subject. The first of these is "The UMRCC - Conservation Through Cooperation." It will be given by Norm Stucky of our Department. Norm was born and raised on a farm in central Kansas for which we Missourians try to forgive him. He did his undergraduate studies from Tabor College at Hillsboro, Kansas and a graduate degree from Kansas State University in 1969. From 1969 to 1978, he worked for the Nebraska Game and Parks Commission as a Fisheries Research Biologist. In 1974, he became a Water Resources Analysist which included environmental coordination with the SCS, COE and BLM and also statewide water pollution investigations. Norm joined the Missouri Department of Conservation in March 1978, as an Environmental Coordinator in Planning Section. His primary responsibilities are the coordination of environmental issues and problems on the Missouri and Mississippi rivers.

THE UMRCC - CONSERVATION THROUGH COOPERATION

NORM STUCKY
Environmental Coordinator
Missouri Department of Conservation
Jefferson City, Missouri

Thank you, Dean. Are you aware that you are near one of the greatest river systems in the world? If not, I trust that before you leave this conference and the Hannibal area, that fact will have hit home. Over my years as a professional, I have developed a special love for and interest in our big rivers and I am really troubled by the apparent mood of many bureaucrats which seems to be "write off our big rivers, that they are only for transporting waste from our large cities, or bulk commodities via commercial barge traffic." Listen, don't write off the Upper Mississippi River system! It is still one of the most diverse, productive ecosystems in the world. In recent years, resource managers have, in an attempt to draw attention to this fact, sought to place an economic worth on the recreational resources of the Mississippi River. Not surprisingly, it has been learned that outdoor recreation, is big business on the Upper Mississippi River system. A 1982 publication established that an estimated $500 million is spent annually in pursuit of recreation on the upper river.

The topic of my presentation today relates to the organization that has long been involved in the cooperative management of the Upper Mississippi. It gives me a great deal of pleasure to discuss with you the Upper Mississippi River Conservation Committee (UMRCC) because I have been personally involved in the organization for the past 6½ years and I believe in it. The UMRCC, as we refer to it, has a long rich history. Just this past year we celebrated the organization's 40th year of conservation through cooperation and I believe that cooperation

is the key word to the success of this organization. I would like in the next few minutes to discuss that thought with you and introduce you to the UMRCC by discussing the following questions. What is the UMRCC? How does it function? What has and is being accomplished?

First of all then, What is the UMRCC? The organization became a formal inentity on December 15, 1943, when 22 biologists from the five states bordering the Upper Mississippi River gathered together at Dubuque, Iowa to discuss a common approach to the development, preservation and management of the Upper Mississippi River system. That portion of the river which is the concern of the organization stems from the mouth of the Ohio River upstream to Hastings, Minnesota, a distance of approximately 817 miles.

The five sponsoring states are Minnesota, Wisconsin, Iowa, Illinois, and Missouri. I would make special note of the fact that it is the conservation agencies from within these five states that join together to form the UMRCC. Now you might ask, "Why the need for such an organization". First of all, I think it is rather obvious that critters do not recognize legal state boundaries. On a vast system like the Upper Mississippi River where five states border the river, cooperative studies, cooperative management practices, and cooperation with regard to regulations are needed if we are going to properly address the Upper Mississippi River resources.

Secondly, man has had and continues to have a tremendous impact on the river, particularly with regard to developing it for commercial navigation. Construction of the 27 locks and dams above St. Louis pooled the river and, (incidently for you foreigners, Hannibal is at approximate river mile 310 in pool 22) and channelization of the river, the 200 mile reach of river, below St. Louis, likewise significantly altered that natural eco-system. Construction of the 27 locks and dams created many thousands of acres of backwaters, chutes, side channels and wetlands, a real management opportunity and challenge.

A challenge of an entirely different magnitude is presented by the 200-mile reach of channelized river below St. Louis. With development of the river for navigation came an increase in commercial barge traffic, the need for more terminal facilities and, currently a red-hot issue on the Upper Mississippi River system, a need for more barge fleeting facilities for parking lots. These activities had to be monitored, someone needed to go to bat for the resources, for the environment, so the five states joined hands with the Fish and Wildlife Service to form the Upper Mississippi River Conservation Committee. I would at this point make special mention of the key role that the Fish and Wildlife Service has played in the organization for without their continued dedication, commitment and cooperation, I really believe the UMRCC would cease to function. The states certainly contributed much of the manpower and funds for the organization through their $1,000 annual dues, but it is undoubtedly the Fish

and Wildlife Service that provides the glue holding the organization together, helping it to function so effectively. This is accomplished through provision of the UMRCC Coordinator. The Coordinator is a full-time employee of the Fish and Wildlife Service, stationed with the Ecological Service office in Rock Island and this individual can spend up to 50% of his or her time on coordination of UMRCC activities. Jerry Rasmussen, our current Coordinator, has served in this capacity for the past eight years and, Jerry, like his predecessors, has done a super job. Again, I cannot overstate or overemphasize the important role the Coordinator plays. Early on, the UMRCC recognized that we couldn't go it alone and accomplish much. Therefore, an open invitation was extended to all state and federal agencies as well as consulting firms and the public at large to join with us in addressing important issues and concerns on the Upper Mississippi River system. The stated objectives of the organization are "to promote the preservation and wise utilization of the recreational resources of the Upper Mississippi River and to formulate policies, plans and programs for conducting cooperative studies for the benefit and appreciation of people interested in the natural amenities and values of the river, including fishermen, hunters, boaters, naturalists, and others."

With this background information, let's move to the second question: How does the UMRCC work? The objectives and business of the organization are carried out by a five-member executive board. An official delegate represents each of the states and, of course, the Coordinator also sits in on the executive board. Each state is given one vote on issues requiring a vote and the executive board meets twice a year, once in the spring during the annual meeting of the UMRCC, and then again in the fall. The balance of the year business is conducted via telephone and correspondence. There exists within the organization four standing committees or sections. Every participant - every member of the UMRCC - is active in one or more of these sections or committees. These are: Fisheries and Water Quality Section, Wildlife Section, Law Enforcement Section, and Recreation Section. Like the executive board, committee meetings are held at the time of the annual meeting in the spring and, if necessary, again during the fall. As mentioned, the organization has an annual meeting which is hosted in turn by the five states. This meeting gives participants an opportunity to present cooperative, ongoing studies, discuss issues of concern and pending legislation that would affect the Upper Mississippi River's environmental resources. Proceedings of the annual meeting are published and are available from the UMRCC Coordinator in Rock Island.

An important part of the organization and responsibility of the UMRCC Coordinator is publishing a bi-monthly newsletter. The newsletter is made available to all members. It is prepared by the Coordinator and sent out with the approval of the executive board chairman. The newsletter keeps resource managers, biologists, and other interested people abreast of current issues

on the river, study results, and so forth. I might add that this newsletter is also made available to other river related interests to keep them advised of what is going on within the UMRCC.

Finally, then, what has and is being accomplished? In preparing this section, I read a number of early UMRCC documents and reports and was intrigued by the number of noteworthy participants who have been active in the UMRCC. Another thing that seemed to be rather clear is that there has always been an effort to be unified in our thinking on fish and wildlife resources in an 817 mile river corridor. I believe this is one of the strengths of the organization that really comes through. Over the years, the UMRCC has established and maintained a rather impressive library of river-related documents. The library is located in Rock Island and it houses all of the publications for which the UMRCC is responsibile as well as numerous other river-related documents. I might note that just this past year when the Cousteau expedition was studying the river's resources the UMRCC made available to that group a large quantity of information relating to the environmental resources on the Upper Mississippi River.

As I poured through some of those old documents, I was really impressed with the fact that some goals, some efforts, take a long time to bear fruit. One such goal would certainly have to be establishing uniform commercial fishing regulations on the river. It took many years and much effort but just this past year, state legislation was passed making it possible to establish uniform commercial fishing regulations between the states on the UMRS. I believe a lot of the credit for this accomplishment goes to the UMRCC.

The river's mussel resources presented another interesting, fasinating account. I was intrigued to read in a February 1, 1944, meeting report that Aldo Leopold was once active in the UMRCC and that at a February 1, 1944, meeting he recommended a study of mussels on the UMRS be undertaken. Reference to war, the food situation, and population changes due to changing river conditions were mentioned as the reasons such a study was needed. As most of you are aware, it has really only been in recent years that malacologists have made an appearance on conservation department staff that the UMRCC sponsored a symposium on bi-balve mollusc in or on the Upper Mississippi River in 1979 did much to focus attention on this valuable resource. It might interest you to know that in the past several years there has been a tremendous resurgence in commercial musseling on the river.

Then there are those issues that don't ever seem to go away or get resolved. A March 27, 1947 Wildlife Section report contained comments and data from Frank Bellrose of the Illinois Natural History Survey, and Gusto Swanson from the U. S. Fish and Wildlife Service relative to ingestion of lead shot. As most of you are well aware, the lead versus steel controversy rages on today.

I guess the thing that really intrigues me is the number of giants in our profession who made such significant contributions during those early years to the UMRCC. Much of the way we do business on the river in terms of managing the resources and handling the public on the public hunting and fishing areas, can in large part be attributed to the UMRCC. Some of those early participants included "giants" like Arnold Erickson from Minnesota, M. O. Steen and Ted Shanks from Missouri, Dr. Ed Kozicky of the Iowa Cooperative Wildlife Research Unit, Ray Steele from the U. S. Fish and Wildlife Service at Winona, E. B. Speaker from the Iowa Conservation Commission. Again, these are giants that made a significant contribution during those early years that have enabled the UMRCC to become so effective today. I must also note that the fisheries troops weren't too shabby in those early years either. The work of Dr. George Bennett, Illinois Natural History Survey; Paul Barnickol, from Missouri; Dr. Ken Carlander, from the state of Iowa and, of course, his wife Harriet Bell Carlander's work on the "History of Fish and Fishing in the Upper Mississippi River." All of these individuals made significant contributions in the form of cooperative studies and publications that are really classic in their field.

Did the organization only have a glowing past? What about today? I have mentioned some of these early participants because I believe that it was their dedication and their expertise that laid the foundation, the strong foundation that enabled the UMRCC to evolve into the strong mouthpiece that it is today, and I really believe that perhaps this is the most important function of the UMRCC. That being to serve as a mouthpiece for the critters on the river, alerting the public and decision makers of their presence, of their significance and of their status. I think without that strong base, the UMRCC could never have risen to the occasion to properly address such issues in recent years as year around navigation on the Upper Mississippi River system of going from the 9-foot channel to the 12-foot navigation channel on the Upper Mississippi River system and, perhaps most noteworthy, the decade-long battle surrounding the replacement of Lock and Dam 26 just down river from here at Alton, Illinois. The UMRCC had a tremendous influence and impact on the Legislation that was finally passed allowing start up of construction of the Lock and Dam 26 replacement and making provision for developing the comprehensive master plan for management of the Upper Mississippi River system. Bio-politics is, after all, where the future of the river really lies and again, this is where I believe the strength of the UMRCC lies. I think that it is noteworthy that because of the reputation the organization has, in recent years we have actually had elected officials from the states bordering the river contact the UMRCC requesting their thoughts and their position on certain key legislation that would impact the river's environmental resources. What does that future hold? Well, there is no question in my mind that development pressures will continue and,

in a sense, the resources are hanging in the balance and I believe that, perhaps as never before, the adage that "united we stand, divided we fall" is true, because I believe without a strong organization like the UMRCC, pictures like this could well depict the future of the river's environmental resources. I am confident, however, that the UMRCC will continue to exist. It will continue to cooperate and stand together and serve as that very effecive mouthpiece alerting the public and the decision makers of the nationally significant resources that remain on the Upper Mississippi River system, and for that reason, I am very optimistic about the future of the Upper Mississippi River's environmental resources. Thank you.

Dean Murphy: We have time for a couple of questions if there are any. Good job! The final paper for this morning's session is entitled "U. S. Fish and Wildlife Service Ten-Year Action Strategy for the Upper Mississippi River". It will be presented by Harvey Nelson, the Regional Director for the Fish and Wildlife Service in this region. Harvey was born in Minnesota. He served in the U. S. Navy in the South Pacific during World War II. He received a B. S. degree in zoology and fish and wildlife management from the University of Minnesota in 1950, a M. S. in resources development from Michigan State University in 1957, and has continued to do graduate work at George Washington University in Washington, D. C. He joined the Fish and Wildlife Service in 1950. In 1957, he was transferred to the Regional Office in Minneapolis as Assistant Regional Supervisor. In 1963, he was appointed Director of the Northern Prairie Wildlife Research Center in Jamestown, North Dakota. He became Deputy Associate Director for Wildlife in Washington, D. C. in 1974 and in 1976 was promoted to Associate Director for Fish and Wildlife Resources. In 1979, he was appointed Regional Director of the Service's North Central Region headquartered at Twin Cities where he administers agency programs in Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Ohio and Indiana. If you have seen the new Fish and Wildlife Service publication, Flyways, Harvey wrote the prologue and in it, John Aldrich says, "The credit for the 1963 discovery that giant Canada geese represented the only stock suitably adapted for the natural reestablishment of new breeding populations in the Eastern Prairie Population was made by Harvey Nelson." Harvey.

USFWS TEN-YEAR ACTION STRATEGY FOR THE UPPER MISSISSIPPI RIVER

HARVEY NELSON
Regional Director
U. S. Fish and Wildlife Service
Twin Cities, Minnesota

Thank you, Dean. When you relate all that, it makes me feel a little bit old. I didn't realize I've been around that long. I have a couple other tasks I'd like to take care of before I proceed with my main topic. First of all, I want to bring you the best wishes from our Director Bob Janzen. Bob had planned to be here today and tomorrow and came to work yesterday prepared to

take on that little trip and he got to the office and found out he had to go to Des Moines tomorrow to substitute for the secretary at the annual meeting of the Isaac Walton League so he called me and said he was sorry he wasn't going to be here but to extend his best wishes to all the folks that are here so I am doing that. Secondly, I would like to sort of answer a question that comes up every time I get around to one of these meetings and I get my name on one of these programs and it says Twin Cities, Minnesota. Last night somebody said, "Please tell me, where is the Twin City." Well, it's kind of a short story really. We happen to have that mailing address for the Regional Office and it confuses a lot of people particularly if they come to the airport and say, "Where is the Fish and Wildlife Service?" "Where is the Twin Cities?" The answer to the question is that we are in the Federal Building at Fort Snelling which is not a part of Minneapolis or St. Paul and there happens to be a major postal distribution center there that is called the Twin Cities Postal Distribution Center and that happens to be our mailing address so, to make a long story short, that is why Twin Cities is used.

I am pleased to see the emphasis given to the Mississippi River programs has already started and will continue today and I would like to build on what Norm has already started. I think he laid the ground work very well and some of the things I may say or some of the slides I have later may be somewhat repetitious but I'll try not to dwell on those too long. The Fish and Wildlife Service, of course, has had a long history on the river going back to the mid-1920s when the first pools were established and the Upper Mississippi Wildlife and Fish Refuge was established. It is the only refuge, by the way, in the whole system that is called wildlife and fish refuge and, in fact, we do some fish management and we hope we can do a lot more and we will in the years ahead, hopefully. But at that time, the major refuge area was established and then, of course, the subsequent developments on the river over a period of years, different parts of the Upper Mississippi Refuge were expanded. Most of you know, now we have the Upper Miss on the upper portion of the river, and the Mark Twain Refuge in the lower part of the so called Upper Mississippi River which was explained by Norm. Now, interwoven in all that, of course, are a variety of other state management areas, local

and municipal developments related to fish and wildlife recreational interests, mostly superimposed on Corps lands or General Plan lands, on lands that they have jurisdication, are managed under Cooperative Agreement, so we have a lot of interchange with you folks on a great variety of programs on the river, in addition to the refuges themselves.

Over the years, the Service has worked very closely, as Norm indicated, not only with the UMRCC which is has sort of been, I think, the glue that has held it together, not so much the Service but the fact that it has sort of been an informal organization that has made itself work and they deserve a lot of

credit for that, people who have been with it. I don't always get those kind of fine remarks from certain people in the barge industry, however. Now, because of the inter-agency activities on the river, we, of course, have worked very closely with the Corps of Engineers over the years and some by direct congressional action and others by cooperative programs. We've been involved in a rather intensive master planning program as it relates to the refuges, as it relates to the Corps' general planning activity, and I think those activities collectively have been very beneficial both to you and to us so we find ourselves in a constant state of flux in terms of programs coming and going that relate to river activities. Norm illustrated the various agencies that are very directly involved. I think back over the past 20 years the kinds of things that have happened. You know, we went through a particularly significant event back in the mid-1970s when the Great River Environmental Action Team was established which resulted in the GREAT studies, GREAT I, GREAT II, which have been completed and you've seen the results of that, and GREAT III. Dr. Kenney and I and Larry have tried to keep alive and I think there is a chance that certain things are still happening there. All very essential to do the best management job we can do collectively that relates to the river.

Getting back to the Fish and Wildlife Service's primary interest and the topic of my presentation this morning, as various programs come and go and, particularly the more recent concern over Lock and Dam 26 Legislation and proposed developments, there has been, of course, as most of you know, a continued interest in exactly what kinds of environmental concerns, studies, funding, new developments will evolve from this within the next ten years let's say. This caused me to sit back and reflect as to where we really were on the river in terms of Fish and Wildlife Service responsibilities and programs and not knowing exactly what is going to come down the line in terms of new authorization, new Legislation, possible new funding, we had to make some hard decisions about what we felt we needed to do ourselves on the river. That was the purpose of putting together this so called "Ten Year Action Strategy" that most of you have seen and I have some additional copies up here for those who may not have seen it. I put this together or established a little task force within our organization from the various program areas and entities that work on the river, and sort of assembled this document primarily to serve as a budget document internally for the Region and for the Service to lay out where we thought we should be heading in the next ten years, and that in turn, of course, related to all the many cooperative programs on the river and I'll talk more about that at the end if there are questions about that.

Let me turn now to the slides and I cazn probably give you a little better quick rundown on where we stand. Norm mentioned that there are some 800 miles involved in the major portions of the river that we are talking about. The two refuges that we have prime interest in, of course, are Upper Mississippi from

Winona, Minnesota to Dubuque is about 280 some miles, and the Mark Twain south of there is another 220 some miles and collectively that is a part of the major system that has already been described to you. It is a very important piece of habitat as was pointed out to you earlier, both for fish and wildlife, and it is a major corridor that provides essential habitat for a great diversity of species, including 20 some of the more significant species that we find ourselves working with on the federal scene, particularly migratory birds and some of the other species that are either threatened or endangered.

There are some very significant species problems alone related to the river. The canvasback is an important species. We find ourselves today looking at the major portion of the eastern segment of the continental canvasback population now being associated with Pool 7 at LaCross, Lake Onalaska specifically, or Pool 11, the Keokuk Pool. What happens to these pools and the marshes that the birds use and the food supplies may well determine the fate of that particular species. But there are many long term values, the backwater areas as were described earlier are the prime fish and wildlife habitats that we try to preserve and manage to the best of our collective abilities and we are very dependent upon how the Corps manages those pools. A lot of conflicts: commercial navigation, dredging to maintain the 9-foot channel, and the serious question about what happens in the future if and when there may be a 12-foot channel, constant dredging, dredge disposal problems, yet I think collectively in our cooperative work with you folks and the Corps, many of these problems are now being resolved and better disposal sites are being located and used. The major industrial developments, the major cities pose different problems, power plant development, a constant source of community interest, local conflicts but usually reasonable resolution develops, sewage treatment plants. There happens to be the Pigseye Treatment Plant in St. Paul which is a constant source of controversy for one reason or another and it takes close monitoring to make sure that everything is working well.

Commercial fishing was mentioned earlier, an important activity and, strangely enough, particularly in the wintertime. There is a lot of commercial fishing done under the ice, primarily for carp, bufflo and such species. The recreational aspects are rather astounding. There is excellent fishing in many reaches of the river. Any summer day, particularly on weekends, the available sand beaches, dredge disposal sites, anyplace one can dock a boat, are crowded and are used extensively and we find ourselves in the same situation some of you folks are. The marinas are crowded. There is always a demand for new developments, new marinas, new access sites. There is really no limit to what people want to do with the river but, fortunately, because of the controls that do exist, there is some limitation to the kinds of maximum development that can be carried out. Within the refuge units, our people are constantly confronted with the results of a long weekend and you can find this most any Monday morning on any sandbar.

Pollution problems -- this happens to be the confluence of the Mississippi and the St. Croy Rivers. Sedimentation probably is one of the most serious problems that we are all confronted with in terms of management. The backwater areas, the shoots, provide excellent fishing, excellent hunting areas. So with these things in mind in looking ahead, I asked my task group to describe the resource values and threats to the system, to recommend long-term goals and objectives for the Fish and Wildlife Service's role in this total effort and then to recommend some strategies for accomplishing these goals over a ten-year period.

We have a log of documentation, as was pointed out by Norm, to fall back on and it is very useful. One of the most recent ones is the "Land Use Allocation Plan" which we have worked on cooperatively with the Corps which sets the parameters in terms of what is the maximum use that can be permitted and where do you draw the line and how do you curb the interested demand by the public for public use on one hand and that opposed to the private users of the shorelines where they, in turn, in some cases, sort of monopolize public lands for private purposes. They need to draw the line there someplace and there is a constant debate over that. The policies that have been laid out in the "Land Use Allocation Plan" now by the Corps and supported by the Service tend to resolve that particular conflict over the next few years, at least in the upper parts of the river. As I mentioned earlier, the GREAT I studies. Norm covered a number of other activites that have gone in the river over the years, so I'll not spend any time on that, but they have all been very useful and the documentation is good. At the present time, the Fish and Wildlife Service in the upper portions of the river from south of St. Paul to Cairo, Illinois, with respect to primarily the refuges but also recognizing the other kinds of activities we are involved with, the Ecological Services program, law enforcement, wildlife resources as basically with refuges and migratory birds, endangered species, and a limited amount of activity in the fisheries area, and research. We spend about $2.8 million a year on those portions of the river with some 72 people involved. The task group recommended, and these are not necessarily in priority order but they could be because they fit very well. Basically we should address in the future the whole area of environmental quality, the migratory bird responsibilities associated with the river, the basic fisheries and aquatic resources that relate to that, other wildlife species, endangered species, interpretation recreation, and public involvement. Now, these are expressed in terms of the kinds of activities and responsibilities that the Fish and Wildlife Service are confronted with on the river and, looking ahead for the next ten years, where we would put our emphasis. I hope it will be in these seven categories. To come to grips with the budget question, when this report was completed and submitted to me, I used it in our internal Fish and Wildlife Service budget planning process starting last April. Looking at fiscal year 1986 and in our 1986 budget, we proposed that, in addition to what we are now spending on the river, to begin to

get on top of the existing problems, with or without Lock and Dam 26 funding or whatever may come from other sources, the Service should really come to grips and decide to do some of these things. We need a geobased information system for portions of the river where there are some gaps in it. We need to have a combined resource evaluation team of some type. We started to assemble that at the LaCross Fisheries Lab a few years back and the funds sort of fell apart and that group has been partially disbanded although the basic core of people are still there which we could build on. We need to reestablish that kind of a group, both from the research standpoint and from future management standpoint. There is a lot of habitat development and restoration that can be done with the existing pools on Service or Corps lands where we are able to do so. This is directed primarily at the upper parts of the river right now because the Corps has some cooperative work under way on which we can sort of piggyback and we propose to do that. And then we need to get serious about looking at the whole sedimentation problem and, of course, this has been one of the key research needs that was raised in the Upper Mississippi River Basin Commission Report and the GREAT I Report and the UMRCC activities, so we proposed, assuming the budget requests were acted on and come through in this fashion, that we would put another $1.4 million into the river on our program areas and we need about another ten people or more to do that, primarily to reestablish that combined research and management group.

Looking farther ahead and if Lock and Dam 26 Legislation materializes, particularly in the form of the Gunderson Bill, or whatever form that takes. I understand there is some action on that or has been in the House but it has not come out of the Senate yet. But, let's assume that the recommendation in the Basin Report and the more recent UMRCC states that have been involved have recommended that over a ten year period, there should be in the neighborhood of $190 million included in that total development package to carry out the necessary environmental studies, basically fish and wildlife habitat quality, water quality related research. If that kind of funding were to develop, over a ten year period, this is sort of the way the combined interests of the five states involved and ourselves and other agencies have looked at how those dollars might be used and you can see the general breakdown there: long term resource analysis program, $5.7 million annually; habitat restoration, about $13 million annually; and continued recreational development, about $19.2 million annually, or close to the $190 million that was in that package. Now, this includes the funds that would be allocated to the states, to other organizations, anybody involved in the whole environmental studies package. So that is sort of where we stand. I wanted to get this documented and on the record so that from a budget standpoint, we can plan both ways, either without major legislation and new developments on the river or, should such develop, where we would put the money. So that was the purpose of the ten year strategy document and with that, I'm going to stop.

Dean Murphy: Are there any questions for Harvey?

Harvey Nelson: I might attempt to clarify one point. I know some of you were concerned when we first circulated this document that there seemed to be a lot more emphasis on the upper part of the river than the lower part. I'm talking about the Upper Miss in general now, and that was true simply because we had to address some development activities in the upper reaches of the river where we already are involved with the Corps and there was no attempt to slight any needs farther down the river and I think if you read it carefully, you'll see that.

Dean Murphy: That concludes our morning program. I see that the buffet is set up in the other room. As I said, if you will just go in and be seated, the lady in charge in there will designate which tables will go up to eat in what order.

Dean Murphy: Many of you know Keith Harmon from Nebraska. He had to cancel because he fell off a ladder. He was trimming a tree limb and the ladder fell over backwards. He cracked a vertebra and compressed a couple of discs and cracked a bone in his wrist so he sends his regards but his regrets. The first paper of the afternoon is called "Fishing in Missouri with Emphasis on the Mississippi and Missouri Rivers." It will be given by Steve Weithman of our staff. He was born in Tiffin, Ohio. He studied at the University of Missouri at Kansas City and received a B. S. in biology from the University of Missouri-Columbia. Steve also received an M. S. and Ph. D. from the University of Missouri-Columbia. His Doctorate work was entitled "Evaluation of Fishing Quality." After graduation, Steve worked on several projects including a research project to determine the effects of varying levels of dissolved oxygen on the Lake Taneycomo Missouri trout fishery and a project to determine the effects of notched vs. unnotched dikes on fish and macroinvertebrates in the Mississippi River south of St. Louis. On July 1, 1980, Steve was employed as a Fisheries Research Biologist with the Fisheries Research Section of the Missouri Department of Conservation in Columbia. Present projects involve a determination of characteristics and outdoor activities of Missouri residents and to estimate angler effort and success and the economic and aesthetic value of Missouri's recreational fisheries. Given Commission approval, Steve will be promoted to Fisheries Research Supervisor in the Water Quality Branch of the Fisheries Research Section.

FISHING IN MISSOURI WITH EMPHASIS ON THE MISSISSIPPI AND MISSOURI RIVERS

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To plan for the future, a natural resources agency such as the Missouri Department of Conservation must stay in tune with the needs and desires of the public. For example, one area of interest is outdoor recreation. Some important questions questions related to outdoor recreation are: How many people are participating? What are the most popular types of activities and where are these activities taking place? If we can answer those questions, we're going to be well on our way to effectively managing the state's resources. Today what I'd like to do is talk a little bit about fishing in Missouri in general and then get specific and look at fishing in the big rivers, the Mississippi and Missouri Rivers. In late 1982, we began a statewide angler survey. This survey is being conducted entirely by telephone. We selected a sample size of 2,500 Missouri anglers to get enough information to be statistically reliable. We wanted to be sure our sample was representative so we are interviewing both resident and non-resident anglers as well as those who purchased trip permits versus annual permits. We have a very good distribution of people so far in our sample. We have at least one person from every Missouri county and representatives from about 22 other states as well. You might ask, "How did we ever get these names of the people to begin with?" We have a file of people who purchased some type of a fishing license in 1981. We drew from that file, got their names and addresses and then called long distance information to get their telephone numbers. These individuals were then contacted and given a screening questionnaire. We began by asking how many days they fished during all of 1982. Then we got into their preferences for fishing. What species do they prefer? What types of water do they prefer to fish? Then, how important on a relative basis are the species, size, number and diversity of fish they catch and also how important is it for them to catch and release fish or how important to be able to catch fish to eat. After asking these questions, we asked an economic type of question. " How much money do you spend on recreational fishing in a year?" Then we asked some socio-economic characteristics, sex, age, income, education, ethnic origin, and county of residence.

This would help us develop some understanding of the background of the people who fish in Missouri. The last question of the survey was, "Would you agree to be a cooperator with us during 1983 and 1984?" If they said yes, we have been calling them back every one to three months to find out where they go fishing, what they are catching and periodically we will ask them about their expenses for a single fishing trip. The public's response has been very enthusiastic and cooperation has been excellent. Very few people have dropped out of the program. Everybody wanted to help us make fishing better so today I will be talking about initial results based on the data we have collected so far in 1983. Our estimate to date is that there are about 7 million days of fishing that took place in Missouri in 1983. This includes, as I mentioned before, both resident and non-resident anglers fishing in Missouri, licensed anglers and also those who

are exempt from purchasing a permit. Forty-six percent of all this fishing has been conducted at large reservoirs, mainly Corps of Engineers reservoirs. This happens to be Table Rock Lake, but Missouri has several Corps of Engineers lakes, Norfork, Bull Shoals, Clearwater, Wappapello, Pomme de Terre, and Stockton. We also have two very large reservoirs built by electric utility companies, Lake Taneycomo and Lake of the Ozarks, so this is where the bulk of the fishing is taking place in Missouri. Nineteen percent of the fishing took on our large rivers, the Mississippi and Missouri, and also the small streams. Seventeen percent of the fishing took place at intermediate size inpoundments, 5 to 1,000 acres in size. Most of these are privately owned. They were constructed in addition to real estate type developments and, interestingly enough, a lot of these lakes in this size range are the Missouri Department of Conservation community lakes and lakes that are on our public use areas. Eleven percent of the fishing took place at very small lakes, less than five acres in size, typically called farm ponds. We have an extensive resource of these types of bodies of water in Missouri; 250,000-300,000 available for fishing. The final seven percent of effort took place at Missouri trout parks. Now, for those of you who are unfamiliar, a trout park is a place in association with a large spring and spring branch where the Department of Conservation stocks trout on about a daily basis. These are stocked in relation to tag sales so what has developed is an excellent put and take trout fishery, mostly in the southern half of Missouri. So this is where the people were doing their fishing in 1983. Now, what were they directing their effort towards? Thirty-three percent of the people were fishing for bass, the number-one species in the state of Missouri both by preference and use. Number two was crappie, twenty percent of the effort was pointed towards crappie. In a close third, catfish accounted for nineteen percent of the fishing effort. And number four was the trout. So these are the four most important species in Missouri at the present time. Beyond these we have white bass, bluegill, smallmouth bass, paddlefish, just to name a few which account for about one to two percent followings throughout the state. This gives everyone a chance to get the big picture of where the people fish and what they prefer to catch in Missouri. Now, let's look at the Mississippi and Missouri Rivers. These areas represent a vast resource. We have nearly 260,000 acres of water in these two rivers available to Missouri anglers. Our estimate of fishing on these two rivers together is about 170,000 days in 1983. One hundred thousand of this was on the Mississippi and 70,000 on the Missouri. This is in addition to an extensive commercial fishery on both rivers which in total the harvest amounts to about 900,000 pounds of fish per year. We looked at the pattern of use of our recreational anglers. What we found was that the bulk of the use is in July, August and September. Now this wasn't any big surprise because 1983, like a lot of years, was a high water year early in the spring and I think this holds down use at that time of the year. Farther upstream on the Mississippi, up in the area of Minnesota and Iowa, the most important species are walleye,

sauger and sunfish, but once you get down into the area of Missouri the catfish is king. Fifty-six percent of all the effort spent fishing on big rivers was directed towards catfish: channel cat, flathead cat, and blue cat. The next most important species, believe it or not, is the carp and for some of you that may be hard to believe with the reputation that carp has, but they are the second most important river species for our recreational fishermen and we were even about to get one angler to agree to be photographed with a carp but only after it had its head removed so he couldn't be identified. Third in importance is the crappie. Now these are the three species that people pursue when they go fishing in the big rivers. Now what they actually catch sometimes is entirely different story. Channel cat are number one. They account for 25% of the harvest but, believe it or not, number two despite the fact that nobody went fishing for them, was the drum. Twenty-four percent of all the fish caught on the Mississippi and Missouri rivers by recreational anglers were drum. You talk about a PR problem. Only 20% of these fish caught were then kept so by comparison, the carp is a dream fish. In terms of the recreational fishing, besides the drum, after them come flathead cat, some blue cats thrown in, crappie, bluegill. We even have a few walleye as well. Switching back to the commercial fishery, the big three there are carp, bufflo and catfish. Ninety percent of the recreational fishing on the Mississippi and Missouri Rivers is by hook and line. The bulk of the rest of the 10% is mainly done by people using trotlines. This represents a typical catch from a day of fishing on the big river or I should say harvest, one channel cat and a flathead cat. It might take eight hours to catch two fish as nice as these. In addition to these, you might have a few drum that were caught and released, possibly even a few sunfish but this is what one would expect on an average day of fishing on the Mississippi or Missouri Rivers. This compares quite favorably to catfishing statewide. It is a little better on the Mississippi and Missouri Rivers than our statewide average would indicate. Some of the characteristics or preferences exhibited by the anglers are they want to, first of all, be able to catch at least one fish when they going fishing on the Mississippi and Missouri Rivers. The next most important factor is they want to keep fish to eat such as this gentleman has here with the blue cat. Then the next most important factor is size. The big rivers offer a unique opportunity to catch the catfish of a lifetime and that is one of the big drawing cards of the Mississippi and Missouri Rivers. The people who fish there like the mystery. They like the opportunity to catch a big catfish. In this figure each red dot represents one of our cooperators in their county of residence. I would like to review the socio-economic characteristics of the people who do fish the big rivers. First of all, they are predominately male, even more so than in other recreational fishing. Very few ladies will fish the big rivers. Now, whether that is because of safety or just out of habit, I'm not sure. The people who fish the big rivers are about average in age and income compared to other anglers throughout the state but they are slightly below average in

education and on a percentage basis, you're more likely to have minority anglers fishing the big rivers than whites. Each red dot, as I mentioned, represents one of our cooperators in their county of origin. What is really interesting about this fishery is that it is so localized. Nearly all the anglers live in a county adjacent to either the Missouri or Mississippi Rivers, with the biggest concentration near St. Louis in St. Louis and St. Charles counties, but as you can see, they are scattered throughout the river corridor. Three of the anglers are from out-of-state. At the top of the map, two red dots are in Iowa and one just across the river from us here in Illinois, so by and large, these people have a lot of experience fishing the rivers. They are used to that type of fishing. They enjoy it and they don't have to travel far because it is right in their backyard. In addition to recreational fishing, we are also interested in some of the other recreational activities available in association with big rivers. We found out, for instance, based on studies in 1972 and some that are currently being conducted that the number-one activity is sightseeing or pleasure driving, just getting out and enjoying the scenery related to the big rivers. The number-two activity is recreational boating. Sometimes some people waterski in addition to just boating. Third in popularity is the recreational fishing that we have already talked about. Fourth is picnicking and sometimes this is done in conjunction with recreational boating and finally, who can forget hunting along the river, along the Mississippi Flyway. So these are some of the most important activities with and without fishing related to the big rivers. The Missouri Department of Conservation is very concerned about the recreational fisheries as well as these other activities along the big rivers. We are constantly sampling the fish populations to determine distribution and abundance of the fish by a variety of different methods, some of which are better than others at looking at individual species. We have even been involved in a telemetry study where a number of channel cats and flathead cats were implanted with radio transmitters so that we could look at their movements throughout the year. This gives us an idea of critical habitats especially during the winter months, where are these fish holing up. Also, we are considering some projects now to recreate some of the spawning areas that have been lost due to channelization. These can be built along the river, flooded seasonally and provide nursery areas for several of the recreational and commercially important species. In this figure, the red dots represent Department of Conservation access sites on the big river that we owned prior to 1976. In 1976 the citizens of the state passed a 1/8 of one percent conservation sales tax, enabling us to begin our program called Design for Conservation. A main part of that program was purchasing land and acquiring this land to provide access to areas just such as the Mississippi and Missouri Rivers. The areas that have been purchased since 1976 are denoted by the green spots and, as you can see, we have increased our coverage, increased the opportunities available to Missouri residents since that time. Especially important are those related to right where the Missouri flows into the

Mississippi near St. Louis. Note those four access points. The bulk of our fishing cooperators are located in this area. We have done them a great service. By looking at the trends in recreational use and, in particular fishing, we can gear our acquisition plan to try to meet the needs of the public so it is our hope that through the wise use and management of these resources, we can provide for people well into the future. Thank you.

Dean Murphy: Are there any questions for Steve?

Al Farris: How much difference between the Missouri and the Mississippi Rivers as far as fish population and species composition? The Missouri looks alot better here than it does where it borders Iowa and Nebraska. How much effect does channelization and changes in the Missouri River effect fishing opportunity there compared to the Missouri and Mississippi ?

Steve Weithman: Okay, the question was: With the channelization in the Missouri, what are the differences in opportunities of the fish abundance and species composition between the Mississippi and Missouri Rivers. I'm not completely sure about number of species. I believe the Mississippi is a little more diverse than the Missouri in terms of actual numbers of species. In terms of actual numbers of fish, I can only use the commercial fishing as an index and in that instance, I believe the harvest in the Mississippi was about 480,000 pounds and on the Missouri, it was about 408,000, so just a slight advantage to the Mississippi there and, again, we see just a little more recreational use on the Mississippi than we do on the Missouri. Right now that is the best we have to go on in terms of trends and fish abundance there.

Dean Murphy: The next paper is called "Understanding the Main Channel and Main Channel Border Habitats of the Upper Mississippi River." This will be given by Gail Peterson, an Ecologist with the U. S. Fish and Wildlife Service in Rock Island. Gail has a B. S. in natural resources and environmental science from Purdue University. She worked as an Environmental Protection Specialist with the U. S. Coast Guard in Washington, D. C. from 1976-78. Since January, 1978, she has been an Ecologist with the U. S. Fish and Wildlife Service in the Rock Island Ecological Services Field Office. Gail helped formulate the Great River Environmental Action Team (GREAT II) plan as chairman of the Fish and Wildlife Management Work Group, worked on the Comprehensive Master Plan and other projects. She currently chairs the On-Site Inspection Team (acceptable dredge disposal sites) and chairs the Fish and Wildlife Interagency Committee which assists implementation of the fish and wildlife recommendations of GREAT II.

UNDERSTANDING THE MAIN CHANNEL AND MAIN CHANNEL BORDER HABITATS OF THE UPPER MISSISSIPPI RIVER

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The pooled portion of the Upper Mississippi River above St. Louis is a highly diverse fish and wildlife resource. It is the only inland river in the United States that is designated by federal law as both a national wildlife refuge and a commercial navigation project. As such, it has had a turbulent past in determining how this multi-purpose resource should be used to the public benefit.

Much of the recent controversy stems from the need to dredge to maintain a 9-foot navigation channel and the additions of increased navigation capacity at the lock and dams. These issues have put increasing demands on the state and federal fish and wildlife biologists working on the river. Questions such as the impacts of dredged material disposal on wetlands, the effects of sedimentation on aquatic habitat, the impacts on larval fish from increased tow traffic, and many more have been challenging the biologists for answers. It is a few of these fishery-related questions and our approach to answers that I will briefly describe today.

The focus of our attention in recent years has been determining the effects of dredging and increased navigation on aquatic habitats. The aquatic habitats of the Upper Miss are: main channel, main channel border, tailwaters, side channel, river lake, and sloughs. The primary habitats impacted by dredging and navigation are the main channel and main channel border habitats. Main channel habitat is considered to be that area between the navigation bouys. It varies from 9 to 55 feet deep and contains a substantial bedload of sand over sand, rock, or gravel. A daily average of nine tow boats with nine to fifteen barges per day traverse this habitat in most pools of the Upper Mississippi. If lock capacity were increased, up to 26 tows per day could pass through most of the pools and over 50 tows per day would pass below the river's confluence with the Illinois River. The main channel border habitat is the area from the navigation bouy to the nearest shore. This habitat is highly varied. Many areas contain submerged wing dams and riprap. In some shallow areas, emergent vegetation can be found. This is the habitat most heavily impacted in the past by disposal of dredged material to maintain the navigation channel. Around 2 million cubic yards of sand at up to 50 sites are dredged annually in the pooled river. Much of this material is placed in the floodplain including main channel border habitat.

Although biological research and management on the Upper Mississippi has been ongoing for almost a century, our understanding of this dynamic ecosystem is limited to pieces of site specific data. Information has been particularly lacking in

understanding relative fisheries habitat value and the importance of the main channel and main channel border habitats.

It was not too many years ago that the main channel was considered by many non-biologists to be a sterile, biological desert. The main channel border excluding the wing dams was also thought to be of low value compared to the backwaters, which were teeming with life. These opinions probably stemmed from the fact that little or no data existed for the two habitats. Most of the past research has focused on the backwater habitats which were far easier for the biologists to sample and contain large concentrations of sportfish in the summer months.

In response to the recent needs for data for impact analysis, the state conservation agencies of MN, WI, IA, IL and MO have initiated special studies in main channel and main channel border habitats. The Fish and Wildlife Service with funding from the Corps of Engineers and several Corps-contracted studies have also collected information on these habitats. However, the biologists have now recognized that there is a common problem in all these studies: the low efficiency and coverage of the sampling gear. Use of traditional entrapment gear or electrofishers is difficult in current velocities over 2 feet per second and at depths in excess of 10 feet which are common in the main channel and main channel border. These areas are even more difficult to sample in winter months when ice conditions are unstable but which may also be the period the main channel is most highly used by fish. To complicate the analyses further, different sites may require different gear type which make such measurements as catch per unit effort uncomparable and determinations of relative value impossible.

This has led us to begin to look for fish sampling techniques that are efficient, have a broad coverage, and are similarly selective in all habitats sampled. Two projects undertaken by the Fish and Wildlife Service and funded by the Corps of Engineers Rock Island District have presented opportunities to evaluate several uncustomary sampling methods in conjunction with traditional means. These studies were developed by a committee of federal and state biologists which was established to assist in implementing the recommendations of GREAT II in Pools 11 through 22.

One study was recommended to assess the impacts of disposal of dredged material in the thalweg, the deepest part of the channel with the greatest velocities. It is the Corps' contention that dredged sand disposed in the thalweg will incorporate in the bedload and continue to move in the thalweg, where the greatest energy is. However, the biologists have been skeptical as sand islands are constant reminders of the imapcts of dredge spoil. Therefore, the study of the "Environmental Evaluation of the Thalweg Disposal of Dredged Material" was initiated in 1982 and will be completed next year.

This is a two part study being done in Pool 13 upstream from Rock Island. It is being done to determine the aquatic impacts of the disposal of dredged material in the thalweg. The thalweg meanders through both main channel and main channel border habitat. One portion of this study is to tract the movement of the dredge spoil by tagging the sand with fluorescent dye. In this slide, pink fluoresent dyed sand is being added to the dredge slurry. Monitoring is being done by Argonne National Laboratories to determine if the dredged material moves into valuable aquatic habitats such as backwaters or wing dam fields or actually incorporates with the bedload and continue to move in the thalweg. To date, at three tagging disposal sites, the dredged sand has stayed in the thalweg with very few particles of dyed sand moving into shallow water habitats. From the three tracing experiments, Argonne hopes to develop some predictive capability to assist the biologists in determining the movement at all potential thalweg disposal sites.

The other portion of the study is being conducted by our Rock Island Field Office in cooperation with the Iowa Cooperative Fishery Research Unit. The objectives of this work are to evaluate fishery composition and relative abundance in thalweg microhabitats and to assess the potential impacts of thalweg disposal of dredged material. From information collected previously, it was thought that thalweg microhabitats such as scour holes, sand dunes, rock, or debris could be important to fish, especially during the winter.

One study completed in 1980, concluded that the main channel was an important nursery area for channel catfish and that silver chub, mooneye, shovelnose sturgeon, freshwater drum, river darter, and flathead catfish, in addition to channel catfish, were typical of the fishery of the main channel. However, the absence of such common species as white bass, walleye, and sauger was unexplainable and led us to investigate some different sampling methods for the current study.

The fisheries portion of the study was designed to collect data primarily with entrapment gear. However, in addition to hoop netting, trawling, and larval fish sampling in the thalweg, deepwater winter electrofishing, radio-telemetry, scuba diving, and prima-cord detonation are methods being conducted. These additional methods are relatively untested under main channel and main channel border conditions, however, each presents a unique opportunity to colelct data not possible by entrapment methods.

The electrofishing was done by the Wisconsin DNR using deepwater electrodes in waters less than 41°. This method has been successfully used in Nebraska, Wisconsin and Minnesota. However, its success to date in this study has been limited, perhaps due to the high flow, deepwater conditions.

Radio-telemetry has become popular on the Upper Miss recently as state-of-the-art electronics has made this method less expensive and easier to use. It is an attractive sampling technique since it can yield very site specific and species specific information. For the thalweg study, 17 catfish and 11 buffalo were implanted with transmitters and tracked from October 1982 to April 1983. Tracking was hindered, though, by the unusual high water on the river during this period. Fish seemed to spend more time in backwaters that would normally be subject to winterkill. Also, at least 10 fish moved from the study area to other pools, as the dam gates were often out of the water during this period. Even so, some generalizations regarding utilization of winter habitats and characteristics of these habitat types could be inferred. Thus, additional telemetry work was warranted this winter and is ongoing.

Scuba diving was also employed for the thalweg study. Since no one really knew what the thalweg looked like or the frequency of microhabitats in this area, it seemed natural to send a diver down to investigate. The Illinois Natural History Survey and Great Lakes Consultants were subcontracted to do the diving. Winter presents an unusual opportunity for diving in what is normally thought of as the muddy Mississippi. In the wintyer underwater visibility in the pooled river can be up to 30 feet with 5 to 10 feet being normal. We had intended to do diving in the winters of 1983 and 1984 but due to the mild winter in 1983, floating pans and rotten ice made conditions too dangerous to accomplish the diving. Last January, though, the diving crew was out for two weeks with temperatures ranging from 28° above zero to 14° below zero. Ice cover this year was much more cooperative and was up to 24 inches thick. The diving was highly successful in spite of frozen generators and heavy wear and tear on the ice boat. Most data collection was visual using still cameras. We also had the opportunity to rent an underwater video camera for a day. That day many field biologists, including myself, watched in total awe as the world on the bottom of the river opened up to our view.

Diving was done at five of the eight sites being sampled throughout the year with entrapment gear. The divers found that some sites were rolling sand waves with no or little detritus. They could see clouds of turbidity approaching and passing by them at various intervals. Other sites they looked at were rocky with debris and freshwater mussels scattered throughout. Channel catfish, flathead catfish, sturgeon, and shiners were seen tucked away between large rocks or behind logs such as in this slide. Any little space out of the current including another fish seemed to be candidate spots for the near dormant fish. (If any of you are interested in viewing the videotapes, we will be showing them tomorrow afternoon.)

Last, but not least, in the thalweg study is a method that appears very promising. The main problem with standard gear

types is that it is unknown if the entire area has been sampled including all the rock crevices and trough of sand waves. At the time we were designing the study, it seemed nothing short of an explosion could effectively sample these areas. So we thought, why not do some blasting? It seemed far fetched, but actually has been the easiest sampling of the main channel and main channel border to date.

We are still in the experimental stage with this technique. Primacord has been the explosive selected for use because it has been used successfully on smaller waterways in Florida, Iowa, Nebraska, and Idaho. It is relatively safe and can be configured in any pattern without altering its effectiveness. The design was worked out by our committee of biologists and consisted of a lattice of Primacord to sample between an acre and two acres in the Iowa main channel border. Two thalweg sites were detonated in both May and October by an explosives contractor. Fish collection was a team effort of federal and state biologists. As you can see, the blast was only slightly spectacular and there was little danger.

Originally, we thought that impacted fish would roll along the bottom, so three bottom trawls were lined up to collect fish. However, most of the fish floated to the surface immediately and few were collected in the trawls. We also tried drifting a trammel net during the October detonations to make sure fish weren't floating mid-way in the water column. Here, again, few fish were collected and we concluded that the majority of fish in the kill zone floated to the surface and could be taken with dip nets. The results of the detonaitons were very favorable. Due to extreme high water, low numbers of fish were found in the May detonation. But in less than a day's work in October, we collected over seven hundred fish of 17 species that weighed about 600 pounds. By comparison at 8 sites, all gear types combined, and for 12 months, almost 2,000 fish of 26 species were captured. The detonation data is especially important since very few fish were collected at these sites with hoop nets and a bottom trawl just two days before. At a site about 10 feet deep with basically no bottom relief or other structures, we hypothesized that habitat of this type supported about 200 pounds of fish per acre. At the second site that varied from 16 to 32 feet deep with adjacent riprap, we hypothesized that there was over 300 pounds per acre. These calculations compare favorably to other standing crop estimates for Upper Miss backwaters sampled with rotenone. Right now it is too early to make any conclusions other than to say that Primacord was successful in sampling deep, swift flowing waters in the main channel border and will provide a good complement to the data collected with other gear types. We plan to continue to refine this technique in the fall by trying to determine the actual kill zone with variously spaced fish in cages.

One time of the year that Primacord won't work is in the winter when there is an ice cover. In 1978, biologists along the river were faced with the question of the potential impacts of winter navigation above St. Louis. Again, we realized that we lacked the data to fully convince our critics of our concerns. Therefore, study priorities were established, and the Corps recommended that baseline winter data be collected before future feasibility studies are conducted. First priority on this list was winter fishery biology. Just where are the fish in the stressful winter? And how important is the main channel and main channel border as wintering habitat? These questions were posed as our committee of state and federal biologists combined their thoughts in designing a monitoring plan to collect the needed baseline data. However, one question continued to nag in everyone's mind. What is the relative value of each of the Upper Miss. habitat types.

It was certain that it would take different gear types to fish different habitat types and thus statistical comparisons across habitat types would not be valid. We needed a gear type that could "look" diurnally at all habitats on an equal basis and could monitor fish movements. Since diving is not useful in turbulent conditions and is expensive, and radio telemetry is limited by the number of fish that can be easily tracked, other means were considered. After a review of the literature, hydroacoustics, more simply known as sonar or echo sounding, appeared to be the most feasible technique. It has long been used as a major tool for commercial fishing. Recent technical advances have made it more acceptable for fish stock assessment research. It is unique from other fish sampling gear in that it can record most fish present in a defined area, can monitor their movement over prolonged periods of time, and can be deployed over a wide range of conditions or habitats. Its only shortcoming is that traditional sampling is still necessary to determine species composition.

At the time we were considering hydroacoustics, it had very limited use in shallow riverine systems. Therefore, we concluded it was prudent to conduct a pilot test of the technique including use of complementary gear to determine species composition. We conducted the pilot test last year with assistance provided by the Fisheries Research Institute at the University of Washington, one of the leaders in hydroacoustic research. Funding was provided by the Corps. The pilot test was conducted in Pool 18 north of Burlington, Iowa, and was to determine the reliability and efficiency of hydroacoustic gear in sampling main channel, main channel border, side channel, river lake, tailwater, and selected deep backwater habitats that may be used by fish in the winter. Ground truthing was done with electrofishing, bottom trawling, and gill nets. Two modes were used to deploy the sonar gear, stationary and transecting from a boat mounted transducer.

The results of the pilot test demonstrated that sonar is clearly suitable for collecting fish data any time of the year. However,

the problem still exists in the unknown selectivity and efficiency of traditional gear types for determining species composition. Our committee of biologists considered this problem and finally concluded that our original study objective to document fish use of all habitats, including species composition, was not attainable given known funding restraints. We also concluded that for the questions at hand, it wasn't necessary to know species composition, that just documenting the presence or absence of large concentrations of fish was sufficient. This revised objective emphasizes learning the relative importance of the various aquatic habitats without stressing knowledge of species composition. The best sampling tool available still is the hydroacoustic system. We concluded the pilot test by developing a plan of study for use when funding becomes available.

As you can see, the problems associated with understanding the fishery of the Upper Mississippi are complex. Trying to manage this multi-purpose resource is difficult not only from the questions posed in response to developmental pressures but also in cloosing the methods to answer these questions. We have been fortunate in the last decade to have two major planning studies authorized by Congress, the GREAT studies and the Comprehensive Master Plan for the Management of the Upper Mississippi River System. These studies have brought wide and varied disciplines together to identify and understand each other's problems. In particular, state and federal biologists are now meeting together regularly to determine how best to implement the recommendations of these studies based on available federal funding.

So far, we have combined federal and state efforts to substantially increase our knowledge of the main channel and main channel border habitats. We have documented that they are not "biological deserts", and are beginning to realize that the two habitats are even more valuable than what we once thought. Significant numbers of freshwater drum, flathead catfish, channel catfish, smallmouth buffalo, shovelnose sturgeon, silver chub, northern redhorse, mooneye, and river darter can be found in main channel and main channel border habitats. Many of the studies are ongoing. Radio-telemetry, diving, detonation, and hydroacoustics all appear to be promising means to understand and compare this complex resource. We are still behind the 8-ball, but piece by piece we are beginning to complete the puzzle and as the picture becomes more clear, we'll better be able to protect this dynamic resource.

Thank you. Are there any questions?

(As I mentioned before, you will be able to view our diving videotapes tomorrow afternoon. I have also brought a short tape of the Primacord detonation and of commercial mussel fishing. You are invited to drop in any time to view these tapes.)

Dean Murphy: The final paper for this afternoon is called, "Active Management of Mississippi River Bottomland Forests", given by Roger Bollman, Natural Resource Manager for the Rock Island District of the Corps of Engineers. Roger received his B.S. degree in fish and wildlife biology from Iowa State University in 1972. He spent two years with the U.S. Army, Airborne Infantry in West Germany. He has worked as a Park Ranger with the National Park Service at Theodore Roosevelt National Park in North Dakota. He was Park Superintendent for five years with the North Dakota Parks and Recreation Department. From 1978-80 was Chief Ranger, U.S. Army Corps of Engineers, Mississippi River Project, Rock Island. Presently Roger is a Natural Resource Manager with Rock Island Corps of Engineers, where he administers the Corps' resource management program on the Mississippi River corridor for the Rock Island District.

ACTIVE MANAGEMENT OF MISSISSIPPI RIVER BOTTOMLAND FORESTS

ROGER BOLLMAN
Natural Resource Manager
Rock Island District, U.S. Army Corps of Engineers

I guess I would first like to relate to you folks my extreme pleasure at being able to be here to talk to such a distinguished group of people, and also relate the experience I had standing here in this exact spot about a month and a half ago at a Master Plan meeting for Pool 22 on the Mississippi River where we were fairly well roasted by cabin leasees whose leases were to be terminated in 1989. I would sincerely hope that this group is a little more receptive in nature than those particular individuals were.

I think what we have heard today is basically a concept that the Mississippi River is a very complex beast to deal with, not so much perhaps because of the natural elements involved with the river but more so because of the tinkering man has been involved in with the river and, obviously, the Corps of Engineers has had a lot to do with that tinkering todate. We have also heard a lot about interagency interdisciplinary cooperation and the story that I bring to you today is another one of those stories of interagency cooperation, basically a success story of interdisciplinary and interagency cooperation, coordination and communication. The story basically starts in 1978 and in 1978 the Rock Island Corps of Engineers elected to start a new program on the Mississippi River, one that would perhaps bring about a larger degree of sensitivity for the natural environment than had ever been present before and that was accomplished through the hiring of a cadre of natural resource management personnel in the Federal Park Ranger Series who came from a diverse background of natural sciences to include forestry, environmental biology, zoology, fish and wildlife biology and so forth. With the advent of the new natural resource management program within the Rock Island District, many things started to pass. Part of what came to pass was a more thorough involvement by the Corps in active management of Mississippi River bottomland forests.

For a millenia the Mississippi River has provided food and shelter for untold myriad fish and wildlife species. Included among the recipients of the floodplain's bountiful harvest was and is man.

From the prehistoric mound builder who found sustenance in the marshes and along the tributary streams of the river, to the first upswelling of the European immigrant, its bottomland forests and wetlands have generously provided much.

As development bloomed along transportation arteries like the Mississippi River, an all consuming hunter for lumber to fuel the building of communities and support facilities and services prevailed. "Conservation" was a word not yet included in man's vocabulary or comprehension, and the depletion of many forested lands became a reality, with vast acreages of timber lost before the seriousness of such uncontrolled exploitation was realized. The Mississippi River floodplain forests were the first to be in jeopardy because of their proximity to water. Cut timber was easily transported down the river with very short hauling distances after its harvest. But, fast growing, prolific seeding silver maple, cottonwood, and ash came back quickly after cutting, to occupy flood prone sites and newly formed sand bars, where few trees could grow.

Initial acquisition of floodplain forests along the upper Mississippi River was completed in 1943 within the Rock Island District, as a necessary part of the nine-foot channel navigation project. Prior to acquisition, forest management on the timbered bottomlands reflected the familiar story of forest exploitation. The timber was stripped or logged selectively for the products demanded by local markets, resulting in trees of the poorest form and quality being left as seed trees and growing stock.

Congressional approval of the nine-foot channel resulted in Federal purchase of over 93,000 land and water acres within the Rock Island District. Of that, 52,000 acres were forestland. The first forest management plan for the Rock Island District's Mississippi River Project was introduced in 1941, and was developed by the Forestry Department of the Michigan College of Mining and Technology, with input from the U.S. Fish and Wildlife Service. The Corps implemented this plan under the auspices of the Secretary of War with actual authority to begin cutting timber being granted in 1942. Thus followed 22 years of extensive timber cutting which resulted in the removal of 25 million board feet of marketable timber from Corps lands. The majority of the logs were placed in huge rafts, and pushed by boat down the Mississippi to mills in such places as Hannibal, Missouri. Local mills in river towns such as Rock Island and Clinton also placed a demand on the availability of such marketable timber. Major uses were for building and shipping materials, and during World War II, war-related items.

In 1963, a cooperative agreement was entered into between the Corps and the U.S. Fish and Wildlife Service that called for cooperative management of approximately 84,000 acres of wetland and forests belonging to the Corps within the Rock Island District. Outgranted to the Service for fish and wildlife management purposes it was often subgranted to state agencies for similar management. Despite the outgranting of these lands to other agencies, the Corps retained basic ownership of the land, with timber harvesting rights unimpaired.

After implementation of the original 1941 Forest Management Plan, it became increasingly obvious that a revised plan was required to bring silvicultural technique and fish and wildlife management concerns up to current state of the art. This was essential if one believed that the Mississippi River, as a vital natural resource, is in a state of decline due to industrialization and continued development of privately owned lands along the river. Additionally, because of the complexity of multi-agency management on the river, the Rock Island District, with the retained responsibility for managing the forest resource, elected to take the lead. It has been realized that cooperation and communication between state, Service and Corps interests are mandatory to properly maintain and enhance forest resources on the river.

Forest resources on Corps lands had suffered from the long-term effects of selective cutting and, in some cases, highgrading (taking the good and leaving the less saleable trees). As in the pre lock and dam era, this practice resulted in trees of the poorest form and quality being left as seed trees and growing stock. Though selective cutting in the bottomland was lauded as "scientific forestry" of the time, it often resulted in an exploitation of the forest resource. Also, unfortunately, no long-term monitoring studies were set up by which to determine effects of timber cutting on the river's long-term resource productivity.

The river is a constantly changing entity and to adequately manage the natural resources along it and in it, new methods of management must be applied as they become available and the results in applying the same, adequately monitored to assure success.

Just as the river is a changing entity, so too are forest management techniques on riverbottom areas. New techniques and research hold the key to enhanced scientific management of bottomland forests and will be more conducive to consideration of fish and wildlife needs as well. These beliefs spawned formulation of the currently approved plan. Origination and implementation of the plan began in earnest in 1978 and became the responsibility of the Natural Resource Management Branch of the Corps. Corps resource management personnel, in cooperation with wildlife managers, biologists, foresters, and refuge managers of cooperating state and federal agencies, all played and currently play, an active role in the planning process.

Between 1978 and 1980, with assistance from the field offices of the Service and states, the bottomland forests on Corps lands along the Mississippi River within the Rock Island District were cover type mapped utilizing aerial photographs and ground truthing.

Once compiled, a plan of action was developed and an environmental assessment prepared, both of which were sent out for agency review and comment. Subsequently, the Corps' Forest, Fish and Wildlife Appendix was officially approved for implementation in April 1982. The plan is an appendix to the existing 1969 revision to the Corps' Master Plan within the Rock Island District. It represents a forest, fish and wildlife plan for Corps lands not under the cooperative agreement with the Service. For those lands outgranted under the guidelines of the cooperative agreement, it serves as a forest management document only. Primary responsibility for fish and wildlife management on these outgranted lands remain with the U. S. Fish and Wildlife Service.

Annual management plans submitted by the Service for cooperative agreement lands, together with the results of annually scheduled coordination meetings and on-site meetings between the Corps, Service, and states, are addended to this appendix and become part and parcel of it. This process insures that updated information on management for endangered species, rookeries, and game and non-game species is taken into consideration during physical implementation of the plan. The plan, from its inception, has been written and administered in such a fashion so as to allow for flexibility in application.

Obviously, managing the forest resource will have a direct effect on wildlife habitat and its productivity in bottomland areas. Taking this into consideration, the primary objective of the plan is to enhance the overall health and productivity of floodplain forests on Corps lands, thereby increasing the value of such lands for beneficial uses involving fish and wildlife management, and public use. Implementation and adequate coordination of the plan with other involved agencies will result in enhancement of the overall quality of wildlife habitat along with other project purposes. (Commercial fiber production, though a by-product of the plan, is not the primary objective, a healthy diverse bottomland forest is.)

As part of administering the plan, we are required to hold annual coordination meetings with the affected states and Service to discuss annual implementation of the plan. During those meetings, priorities are established for the upcoming year for actual forest management work. Areas are prioritized and selected for work based upon condition of the resource and objectives in the area for forest, and fish and wildlife management.

Preceding the decision to implement any prescription such as TSI, thinning, or patch-cutting, the area is stand mapped. Stand mapping is a detailed mapping done on site, that goes down to a two acre size and involves gathering information on dominant species, basal area density, understory species, wildlife data, etc. This information, together with fish and wildlife management objectives from the Service and states, is utilized for establishing a specific management proposal for a stand or unit. When a joint decision is made to implement a management practice on a specific site, at that time, state and Service personnel meet on site with Corps foresters to discuss site specific needs of the forest and wildlife resource such as live den trees and dead snags to be left per acre, etc. The area is then marked by Corps, Service, and state personnel for work to be done by contract or government hired labor. Proceeds generated from the sale of timber are placed in a reimburseable activities fund which is then utilized to pay for additional natural resource work such as purchase of seedlings, TSI, monitoring studies, and so forth. Additionally, prior to commencement of any work, the appropriate endangered species coordination, cultural investigations, and Section 10 and 404 coordination requirements are completed. Through implementation of forest prescriptions involving harvesting, timber stand improvement, thinning, and planting, a diversity of tree age and size class is maintained in a unit. The objective being a balance in acreage of old growth, mature, pole size, and saplings or seedling trees.

Cottonwood, silver maple, and ash, the predominant species on the riverbottom, do not normally live much past 80-90 years under river conditions and their seedlings are also intolerant to shade and need large openings with full sunlight to grow from seed.

Available information and observation has shown that patch clearcutting is the only effective means of regenerating a forested bottomland back to cottonwood, maple, and ash. Patch-cutting removes a designated acreage of trees of up to ten acres, thus allowing full sunlight to reach the forest floor. By patch-cutting a certain pre-set acreage every five year cutting cycle within a 100 year rotation, and then allowing those patch-cuts to naturally seed into trees, one ends up with a diversity of age and size class of trees. The patch-cut opening is usually unsightly at first, but shortly flourishes with ash, cottonwood, sycamore, and maple seedlings, as well as herbaceous plants such as nettle, aster, cucumber vine, wild strawberry, and various species of grass.

A variety of wildlife species will in turn find refuge and food within these patch clearcuts, as they proceed through successional stages of seedling to mature tree. Another very valuable group of trees for wildlife are the mast producing species such as pin oak, bur oak, swamp white oak, pecan, bitternut and shellbark hickory, and walnut. Having a long life span in comparison to the silver maple and cottonwood, they provide an abundance of food for a wide diversity of wildlife.

The Corps is presently attempting to protect and expand the distribution of these trees on the floodplain. Timber stand improvement cuts, thinnings, and underplanting of these species are done in areas where elevation is higher and somewhat drier. Planting of trees on the floodplain by the Corps is currently averaging 6,000 trees per year. Additionally, the Corps and the Iowa Conservation Commission are currently working with the Iowa Nut Growers Association to protect the existence of a northern growing strain of pecan found as far north as the upper reaches of Pool 13. Through protection of existing known stock and establishment of seedling stock from gathered mast, seedlings will be placed back into selected sites in river bottom areas in order to perpetuate and expand their range.

As little past documentation has been done concerning the effects of active management on bottomland forests, the Corps is utilizing a go-slow philosophy and is subsequently backing up physical implementation with monitoring studies to determine long-term effects. As coordinated with the Service and states, types and intensity of monitoring have been selected that are practical and within reach of budget and manpower limitations. The monitoring systems being put into use involve the establishment of photopoints and utilization of these photopoints as centers for other monitoring to include: tree regeneration studies, deer utilization studies, avian utilization studies, and tree seed production studies. Much of the data to be accumulated will serve to support the accepted biological and ecological principals that all active natural systems management is based upon; i.e. those involving species diversity, population density, plant succession, etc.

Management of the bottomland forest resource is a long-term commitment involving input and coordination from multiple sources. Through continued pooling of ideas and services of those agencies that are committed to sound and wise management of the natural resource of the river, and through adequate monitoring of that management, the river will continue to provide a bountiful harvest for future generations. However, we will only accomplish such high ideals through mutual assistance, trust, persistence, and a firm belief that it can, indeed, be done.

In summary, key words to remember are: COOPERATION
COORDINATION
COMMUNICATION

The complexity of managing the natural resource base of the Mississippi River demands utilization of these key elements if it is to survive as an important, nationally significant resource. Thank you very much for your attention. I am pleased that I have been able to give this program to you this afternoon. If you have any questions, I'd been glad to answer them at this time.

Larry Gale: Do you have any public relations problems with clearcutting?

Roger Bollman: To date, no. We have known that patch clearcutting could create a very controversial issue, especially on an area as heavily used as the Mississippi River so we have been placing a lot of emphasis on public relations work prior to actual cuts taking place. An example would be here on an island which is in the Pool 18 area. It is part of the cooperative agreement through the Fish and Wildlife Service with the state of Iowa. That is a very heavily used duck hunting area. To patch clearcut areas adjacent to duck blinds, etc., we knew it would be very controversial so we met on-site with duck hunters on Herion Island to explain what was going on and that seemed to solve the PR-type problems. Additionally, when we do monitoring studies and such, we make a very avid attempt at getting special interest groups such as the Audubon Society involved in that actual on-site monitoring so they are actually playing a role in what's going on as well. We are going to this with our eyes open and doing as much pre-PR work as possible. Any other questions. Thank you, gentlemen.

Dean Murphy: This concludes our formal program for the afternoon. I want to personally thank all the speakers of the day for very good, informative programs and also for keeping us on time with the conference. We will have coffee and Coke back here form coffee break. We will need to clear this room by 3:00 p.m. for the Legislative Committee. The Resolutions Committee will meet upstairs in the Riverboat Room. That room will again be open from 4:00-5:00 p.m. tonight. The buses for the dinner boat trip will be out in front at 6:00 p.m. You'll need the ticket that was in your packet to get on board the boat. I would say dress would be informal. Are there any other questions or announcements that should be made at this time?

Dave Kenney: I would like to meet with the Nominating Committee at the conclusion of our break. I think we can do it in a corner of this room.

Dean Murphy: Are there any other announcements on committee meeting places? If there aren't, we will adjourn until 8:30 a.m. tomorrow morning.

Wednesday Morning

Dean Murphy: Before we start I'll lay out what we anticipate being our schedule today. The program here will run until 10:00 a.m. with a coffee break, 10:30 a.m.-12:30 p.m. will be Tom Roster. Lunch will be from 12:30-1:30 p.m. where we ate yesterday. The videotapes will be shown upstairs in the Riverboat Room from 1:30-2:30 p.m. At 2:30 p.m. we will board the buses for the Ted Shanks Wildlife Area. There will be an option for a limited number of people to attend a hands-on Shooting Clinic with Tom Roster. At this time, I would like to

see a show of hands of those who anticipate participating in that shooting clinic. Ten is ideal. Thank you. Get together with Kenny back there at the break.

At this time, we are ready to begin the formal morning program. The first paper on the program this morning is, "Where's the Dirt? And, Who Cares?", by Gerald Seinwill, Associate Deputy Chief for Technology of the Soil Conservation Service, Washington, D. C. Jerry is a native of Rockford, Illinois. He has a B.S. in civil engineering from the University of Wisconsin and a masters in water resource management from the University of Wisconsin. He has served as Engineer Officer for the U. S. Army Corps of Engineers in Germany; a Civil Engineer with the Bureau of Reclamation, USDI, in Colorado; as Assistant Director for the Illinois Division of Water Resources in St. Paul, Minnesota; and Director of the U. S. Water Resources Council in Washington, D. C. Since July, 1983, he is Associate Deputy Director for Technology, Soil Conservation Service, USDA, Washington, D. C. He is a resident of Springfield, Virginia. Jerry is member of several professional engineering societies, the Freshwater Society and the U. S. Committee on Irrigation, Drainage and Flood Control.

WHERE'S THE DIRT? AND, WHO CARES?

GERALD D. SEINWILL
Associate Deputy Chief for Technology
Soil Conservation Service
Washington, D. C.

Good morning. We in the Soil Conservation Service are celebrating 50 years of soil and water conservation. Welcome to the celebration. Next April SCS will officially be 50 years old and as they say in the Virginia Slims ads, "We've come a long way, baby." but as they don't say there and it is probably true here, "We've also got a long way to go." Since the dust bowl days of the 30's, we (us feds), you (in state government), farmers, and tens of millions of taxpayers and consumers have spent over $60 billion in soil and water conservation. The dust bowl has been contained, at least temporarily, and cropland erosion seem to be declining but your clientele as well as mine know that the job is not done. Over two million fish kills in 1980 were attributed to agriculture. We are spending $600 million a year to dredge our harbors and waterways. Cropland productivity losses of 4-10% over the next 30-50 years, depending on whose numbers you quote, and up to a third of a billion dollars in annual flood damages attributed to the downstream products of cropland erosion. There is plenty of good soil and water conservation work yet to be done over the next 50 years but each year it gets harder to do it.

We in SCS are beginning to broaden our horizons, to recognize that we work with farmers but for the taxpayers, to understand that soil conservation is a science, an economic science, as well as a religion, to begin to appreciate that perhaps the major

impact of soil erosion is not on the farm but off-site or downstream and maybe to recognize that we have been preaching our soil conservation ethic to the wrong congregation. This is not an epidemic to be sure. We still, like any agency or any movement, persist in doing some things in some ways because that's the way it has always been done, but change as well as dust from the high plains is in the air, and we think it is a refreshing breeze.

I would like to look ahead this morning to the year 2035, to our 100th birthday and to your 102nd annual meeting. Where will we be in agriculture and how will this effect our work in conserving soil and water, and then I would like to come back to the immediate future and examine the changes already underway in soil and water conservation programs and how those changes might fit with the longer range picture. Let me say at the outset that we in the Soil Conservation Service and at the Department of Agriculture think that the future of agriculture remains bright, that soil and water conservation systems have a bright future and that our programs in USDA are in the process of change in order to position themselves for that future.

First, let us look ahead to agriculture 50 years from now. I think we will see phenomenal changes in plant genetics, in weed and pest management, in conservation techniques and in information technology. All of these changes will have a great effect on the practice of soil and water conservation. In plant genetics, for example, science has already demonstrated the capability to understand and fundamentally alter the process of living cells. These new abilities along with other advances in such areas as micro-culture, cell fusion, and regeneration of plants from single cells are creating vast and new opportunities for all the agriculture sciences including natural resources management. For corn and soybeans, for instance, the yield per unit of land has increased threefold and twofold, respectively, in the last 40 years and we can do even better with these and other crops through enhancing the genetic potential for high yields as well as the potential for improved performance in unfavorable environments.

Think with me for a moment about some possibilities. What if we found a way of producing good wheat crops year after year from the same roots rather than from annual plantings. Couldn't new perennials make a great difference in the wind erosion hazards of the Great Plains? What if corn and soybeans didn't have to grow in rows anymore? What if legumes were no longer the only plants that could fix nitrogen? What if we could improve the ability of many crops to take up and assimilate nutrients and to improve the soil? What if we had farm crops for semi-arid areas that needed less water to compliment our efforts to waste less water and irrigation? Then there might be less worry about harnessing icebergs for water supply or giving up whole farming regions to other uses. The possibilities are enormous and are very real. One more that would strongly affect natural resource needs is the

growing science of hydroponics. We talk about fertilizers, pesticides and herbicides and other technology as substitutes for soil. We put these into the fields and our productivity stays up, even if the quality of the soil is declining but when you get to hydroponics, it is the ultimate substitute for soil, instead of no-till, no-soil. As our crop productivity increases, our nation could require less land for growing crops. More acreage could then go out of crop production and into grass and trees. As our National Resources Inventory showed, cropland increased only 2% from 1977-82, yet in those five years corn production went up 29% and wheat production 37%.

There will be many new developments over the next 50 years in our ability to control or manage crop weeds and pests too. The tools of bio-technology already are being applied to viruses and bacteria to insects and weeds, as well as to the plants and animals they affect. We are going to be able to alter the pest as well as altering the farm crop's ability to withstand the pests. We are going to develop safer chemicals and better ways of applying them. Fifty years from now, rather than arguing the relative merits of biological control versus chemical control versus other approaches, I believe we will at last be using integrated systems that maintain weed and pest populations below the point at which they economically affect crops, farm animals, wildlife or people.

The prospects for research breakthroughs in conservation systems are likewise enormous and achievable. Who would have thought 20 years ago that conservation tillage would occupy one out of every four acres farmed in the United States. Farmers and industry continue to experiment and innovate and almost every one of our state Agricultural Experiment Stations and Agricultural Research Service Laboratories are conducting research on various aspects of conservation tillage. Fifty years from now, we should not be surprised to find some form of conservation tillage on nine out of every ten cropland acres.

Today we have news articles about organic farming, about conservation tillage with chemical weed control and about record amounts of terrace construction in Missouri. Fifty years from now instead of arguing the merits of one over the other or the priority for one over the other, we should have new farming systems that combine the best elements of all of them, that overcome the limitations of all of them, farming systems that truly represent a systems approach. We are bullish on conservation tillage, no doubt about that, but we are also concerned about the pernicious side affects of the chemicals required for successful conservation tillage. We are looking forward presently to a National Conference on Conservation Tillage in Nashville this October and we hope there to get all of the questions (economic, environmental, ground water effects, whatever) on the table and make sure that we either have or are actively looking for the answers.

Part of the rapid advances in many scientific fields and in many other aspects of our lives is the almost unbelievable growth in the technology for producing and communicating data and other information. Consider as just one example the tiny silicone computer chip. It costs $4.00 and has the same ability to process information as a large roomful of expensive unpredictable equipment did just a few decades ago. We expect well before the 50 years runs out that computers or devices containing computers will be as ordinary and comfortable a way of life as the pickup truck is today. Farmers will wave a hand or speak a command and their computers will crank up and spit out the latest in market prices, the weather at home and around the world, transportation and storage rates, and all other kinds of forecasts, and then a list of priorities for each day to take advantage of those conditions and those events. Out in the field, the land user will be able to check conditions instantly and review at the touch of a keyboard a whole range of suggestions, procedures, designs and the costs for handling those conditions. These same data handling breakthroughs also will reach every institution which serves farmers so that the ability of government and the private sector will be expanded and sharpened as well. We see this data revolution beginning today. We are beginning to be able in government to make choices in our policies based much more on fact and much less on guesswork, trial and error, or emotional fancy.

Take our latest product at SCS, the National Resources Inventory of 1982. It is still basic and still preliminary but, nonetheless, a step toward that future we envision. It has data from a million sample points within 350,000 primary sampling units or 160 acre tracts all across the country. NRI-82 gives us 300 million pieces of new information on which to think about the future and it is so much better, so much more comprehensive and so much more defensible than any earlier surveys. It is a much better base for the future. I would encourage each of you or each of your agencies to stop by your friendly State Conservationist, have a cup of coffee and find out what the NRI-82 data has for your use in your programs and missions. Five decades from now we will be much better yet at knowing for certain what our land is being used for, what is being grown or fed or built upon it, how much it is being used up, how fast it is eroding from water or wind, and what trends to worry about or to welcome. Five decades from now, we will know much better how to tie our information to studies that are being done outside the USDA or outside government and we will be able to tie that information together, package it better and faster for the people who need it in their decisions. New information technology will be combined with new ideas in communications theory and in the social sciences so that we know more fully what kinds of information, communicated in what combination of ways, will best bring about the desired conservation actions.

Let me shift gears and talk about where the soil conservation programs that were born in 1935 have come from and where they are

heading in the near term. I think they are heading toward a bright future well in tune with the kinds of long-term changes in agriculture that we anticipate. This year and next we are celebrating the 50th birthday of the soil conservation movement and I emphasize that word "movement" because it spread across the country in the dust bowl days with the fervor and fire of an evangelical crusade. It had a heart. Soon came the hands to go with the heart: the conservation districts at the county level; a national government agency, the SCS, to staff the districts;the cost share payments appropriated by Congress, and the various programs of the 50 state governments. Now, along with the hands and the heart, we are acquiring the heads that are needed as well to carry this movement on to its next successful 50 years. Soil and water conservation will have to marshal the kind of precise data and analysis based on hard economics that I have been discussing if it is going to gain and maintain the support it needs from Congress and farmers and ranchers themselves and, more importantly, from the general public in the next five decades. The generation of leaders in Congress and in other parts of public life who remember the dust bowl, who remember the overcut forests and the overgrazed range, the gully erosion and the constant threat of rural flooding, will soon be gone from scene. The generation of rural families who understood resource problems and promise at first hand are being replaced by a vast majority of metropolitan families who believe that Mrs. Paul catches fish in four inch squares and that milk comes out of a one gallon plastic jug. So for soil and water conservation to remain a major federal program over the next 50 years, it will have to be justified with hard data as an important national interest rather than as a program supported by a large part of the farming and ranching community. That traditional base is a diminishing one.

The information in the 1977 National Resource Inventory supplied the data base for our 1980 RCA Appraisal and this appraisal was the underpinning for our 1982 National Conservation Program. The message was clear from the NRI and the appraisal that soil and water conservation programs of the federal government needed to have clearcut national priorities, needed to select certain areas of the country for targeted attention and needed stronger state and local roles. The evidence was there. We could not avoid it and we didn't and we are now in the kind of program shift that our programs must have in order to keep their relevance in the national economy over the next 50 years. Another shift is coming in the way we understand the economic costs and benefits of doing conservation work on a particular field, on a particular farm. Today we've got 34 research projects in 22 states to discover exactly how in dollars and cents soil erosion harms productivity. This is what a farmer or rancher has to know if he or she is going to make the right decisions and we will have these economic tools within the next several years. At last, we will be able to tell the farmer or rancher factually whether soil and water conservation will pay.

Our attention is also shifting to the off-farm effects of soil erosion, the sediment, pesticides, and the animal wastes that leave the farm. The Conservation Foundation in Washington will soon release a relatively massive study of the off-site effects of erosion in which they have tried to find the best available estimate of these economic effects of erosion from all sources. Before quoting some of their figures, I should quote the author's caution. "The following chapter may be more notable for its audacity than for its accuracy." They then go on to give some very round numbers for the off-site damages from erosion of all sources. They report erosion damages causing floods, for instance. The damages from all sources, $970 million a year; from cropland erosion, $320 million; damages to the water born navigation system, $800 million from sediment damages, of that, $160 million is attributed to cropland erosion. And it goes on and on in water storage, water conveyance, recreation. The only one they ducked was wildlife. They couldn't find any type of what they felt was a valid estimate of the economic effects of wildlife losses from erosion. You total the numbers up and the total damage that the nation suffers each year is over $3 billion from erosion from all sources. Within that $3 billion is about $850 million estimated damages caused by cropland erosion. These damages from cropland, if correct, are perhaps twice as large or, being conservative, at least equal to the damages from erosion on cropland. The public conservation subsidy programs as we know them today, should be, may be, we hope, be transformed as this information is further developed and we redefine what the public conservation program ought to be. A better informed electorate and then the representatives of that electorate in Congress, both from the farm and from the non-farm states will be effective in forcing these changes on the programs we know today.

Fifty years from now we can see the conservation districts and the state governments providing more of the actual on-the-ground technical assistance in installing and maintaining conservation systems. USDA's partnership role will still be strong and responsive but it will be more that of a watchful eye, a spot checker, a technological specialist, rather than a provider of comprehensive basic services. The roles will shift within the federal government as well. Conservation will become more closely meshed with environmental programs, with public land management activities, and within other programs within USDA that have a profound though not always recognized impact on conservation, such as the Commodity Assistance and the Farm Credit Programs that have such a major influence on farm management decisions. There will be a much closer tie among these programs. Agencies and farm lending institutions will come to adopt conservation goals as their own rather than simply ignoring them in the face of other economic pressures. The more we know about the precise need for conservation and the impact to soil and water abuse on our economy, the easier it should be to persuade the various institutions that serve agriculture to pay more heed to conservation in their policies, to make conservation part of their policies. The more and the more we can tell

somebody, the more likely it is that 50 years from now, America's individual citizens will be much better informed about the natural environment and their place in it and, therefore, will motivate themselves towards managing or supporting the improvement of the natural resources.

One first step on the road to 2035 will be the 1985 Farm Bill. The time may be right to forge the conservation connection between commodities and conservation, at least to beat out the first few links in a 50 year chain. Cross-compliance, long-term conversion of marginal lands, required cover on erodible acres in set-aside, tax incentives for conservation work, mandatory conservation plans. All of these are at least possibilities in the Farm Bill of 1985 and most of them should be of positive benefit to fish and wildlife resources. It will be, however, a battle of historic proportions. Welcome to the battle. Thank you.

Dean Murphy: Are there any questions for Jerry?

Jim Huntoon: What is your agency's attitude on mandatory controls?

Jerry Seinwill: The agency's attitude on mandatory controls is very cautious as is the Secretary's. He said last December that "I as a farmer and a taxpayer and a citizen think that that is an absolute necessity but the government, the administration, hasn't yet decided that." I think we are going to be dragged willingly in that direction. The Department had a big pow-wow out on Pete Myers' farm sometime this spring and that theme came through from all manner of sources that you wouldn't otherwise expect. The Sod-Buster Bill is one example which is the Administration position now grudging compliance or something like that. It's not very open and it's hard to change, in our case 50 years, and some of the other agencies more than that, but you will see if not open support, positive directions towards that in the 1985 Farm Bill. I am a cockeyed optimist, I might add.

George Seketa: Do you see any directions for peer pressure from one farmer's got enough guts to tell the next farmer, "Hey, you're causing erosion. Let's stop it."

Jerry Seinwill: Yes. One of our sociologic techniques has always been to find willing farmers who will demonstrate good soil management activities and then by living up to the Jones', let this flood through a county, but I think particularly as we as an agency kind of turn over a couple of generations, some of the same thing is happening in the soil and water conservation districts, and this cost sharing becomes more widespread in state government where you have to bite the bullet and not only preach about these things, not regulate, but strongly urge. I think that is happening and we try to encourage it a great deal. Thanks very much.

Dean Murphy: Next on the program is the "Missouri Department of Conservation and Soil Conservation Service: A Partnership in Resource Development." This will be presented by Russell C. Mills, Deputy State Conservationist with the Soil Conservation Service in Missouri and by Robert D. Miller, Private Land Program Coordinator, Division of Wildlife, Missouri Department of Conservation. Russ was born and raised in Mt. Vernon, Ohio. He has a B.S. degree in agriculture from Ohio State University and an MPA from the University of Missouri-Columbia. He has been with the SCS since 1957 as a Student Trainee, Soil Conservationist and District and Area Conservationist in Ohio, and as Assistant State Conservationist for Programs in Missouri. Russ is a member of the Soil Conservation Society, National Association of Conservation Districts, the Missouri Land Improvement Contractors Association and the Missouri Chapter of The Wildlife Society. He presently serves as Depute State Conservationist for the USDA, Soil Conservation Service in Columbia, Missouri, and assists the State Conservationist in the management and direction of all SCS operations in Missouri.

MDC-SCS: A PARTNERSHIP IN RESOURCE DEVELOPMENT

RUSSELL C. MILLS
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Thanks, Dean. I'll never forget the first time I met Dean Murphy and I think it has carried over among many of my friends within the Department of Conservation because Dean said "You know, Russ, you've got a lot of smart people in the Soil Conservation." And I said, "Yeh, we sure have." He said, "You also have a lot of dumb ones. The only trouble I have is telling them apart." So from that time on, I have been trying to get even with Murphy and I understand he is going to retire. I thought I would talk to Director Gale about that retirement so that somehow we can get even with him. You know, if you hear a little hassling between myself and some of the Department members, don't think too much about it. It means we are still speaking to each other. It's when we don't hassle that there's trouble.

Let me approach it from this angle if I may in the next half hour. You'll notice on the billing it was MDC-SCS. I give them top billing, but I got to talk first so that way Bob Miller will come along and clean up the rest of it. He is sitting back there wondering what he is going to clean up. I'll give you an idea in just a few minutes. What I would like to do is share with you some ideas that we are working on in this state between the Department of Conservation and the Soil Conservation Service. I think that you may not believe what I am going to tell you but, believe me, it is the truth because I think there are a lot of states who probably do not have that working relationship between the Soil Conservation Service and other agencies, Department of Conservation, Department of Natural Resources, whatever it may be, that we do in this state. So, what I am telling you is not

fibs. It is the actual truth. You get Bob and I wound up and we'll probably take two hours instead of the half hour allotted. What we tried to do is pull out some of the highlights that we wanted to share with you so that if you have any questions at the end, don't hesitate and if you have any disagreement with us, don't hesitate to bring them out. We try to clarify some points. The attitude we have in this state, at least within the Soil Conservation Service, and I think it happens within the Department of Conservation also, is that if any one agency thinks they have all the answers, they are wrong. We must work together to address these resource concerns that we have in this state and across this nation. When we are so selfish as agencies to think that we can handle everything, you'll never accomplish anything. There is a saying that "You'd be surprised what we can accomplish, if we don't care who gets the credit". That is kind of the theme that we operate under in this state. I saw a sign one time about a year ago that summarizies our feeling just as well as anything. "As we ramble on through life, whatever be our goal, keep our eye upon the donut and not upon the hole." It is an opportunity for all of us to step back and take a look as agencies in partnership to try to decide how we can address the resource concerns that are of mutual interest. The unique thing about this state is the fact that every time, well not every time, but we do a lot of dreaming, if I can use that, and you'd be surprised what comes out of those dreams sometimes that are actually implemented. But as we sit back and think about how we can improve our delivery system and address the resource concerns in this state, but always in a conversation is "where do other agencies fit into this interest", and we are not looking at it from the standpoint that we are trying to put our hands in one another's pockets for funds, but it is "how can we do this to do a better job." And so, as I go through, let me just bring out some of the points that we are working on. If I forget some, it is not on purpose but it is because we only have 30 minutes between the two of us.

Jerry talked about a piece of legislation that I think really started the ball rolling in this state, not the fact that we didn't have a relationship before this time. The Soil and Water Resources Conservation Act of 1977, or RCA, caused us, and their was no reason why legislation but you always need something to pull agencies and people together, brought together agencies and organizations across the state when we as SCS were charged to put together our Missouri Appraisal. It caused us to sit down and look at the donut and not focus on the hole as we had in the past but to take a look at what we had to work with, and behold, when we started to talk about the forestry, the fishery, the wildlife, the quantity and the quality, we looked at one another and we said, "We don't have the foggiest idea what our resources really are out there." It is no wonder that sometimes we can't direct our programs because we don't have a data base or we don't understand the quality and quantity of the resources that exist. With that, we started to sit down and say, "Hey, how can we work together?" At that time, we were working on the 1982 Appraisal

that Jerry talked about, the NRI, and we looked at it and said, "You know, it's silly for all of us to go out and gather the same data. We in SCS are going to have people collect data on over 40,000 points in the state of Missouri. What do you as agencies and we as the Soil Conservation Service need to address the forestry and wildlife resources in the state and what data do we need together." We found out that the 1982 work sheet we were to complete didn't have all the information we wanted and so we developed what we call the Missouri Supplement which gathered more information so that we could take a look at the wildlife conditions and the forestry conditions in this state. When we put the Missouri Supplement together, believe me, it caused some ulcers with some people, not necessarily within the state, Jerry, but higher up. "What are you doing, my lord!" But that's okay. That's part of our mission to cause ulcers, to get people to think sometimes about some things they hadn't thought about before. But as a result of that we said, "Now look. Let's don't be so selfish. Let's take some time." We were talking about a half hour per point or whatever it was, so that we and MDC and whatever other agencies could use this information and, believe me, we are using it.

As a result of that, we are now modeling and working together, we finally got the information and now we are taking a look at the wildlife in this state, both on a quantity and a quality basis and where our problems exist. Bob is going to get into the Wildlife Habitat Appraisal Guide we use in a little bit and I'll mention it, but if you have any questions on that, I'm not going to give anymore information, but it is available, as Jerry said, in every state. There are opportunities for you to capture some information on forestry and wildlife. You would be surprised if you really sit down and do some brainstorming what you can capture out of that resources, inventory. As he said, and I would encourage you to take the opportunity to talk to the local Soil Conservation Service data office and find out exactly what is in there and talk about how you can utilize that data.

From that point on, we also then worked together with the Department and other agencies in what we call PROCEDURES. Basically, all it is just a procedure for describing wildlife. Ray, I don't remember - there are over a thousand species that we are putting into the data base. All it is is to focus on upon information for fish and wildlife and it is to summarize this information into a data base that all of us can use. It has paid dividends. It will be awhile yet before it is completed but at least it brought us together as another way to work together to build this data base that we were talking about. As I go back to the RCA process, one of the things that we recognize is that is was silly for us to have a data base here, the Department to have a data base there, the Department of Natural Resources to have a data base over there, with nothing you can merge together. As a group of agencies and, primarily with support of the SCS and the Department of Conservation to be very honest about it, through about a year and a half or two years of, if I can use the word

"haggling", manipulating, politicking or whatever you want to call it, in working with the University of Missouri-Columbia, we collectively established a geographic resources center which we use as our state data bank where the PROCEDURES, our NRI, the LANDSAT, all the information is brought together in one location for all people to use, not just for one agency. It is a data base now that we can develop, if you are familiar with some of the terms, a geographic information system where we can take the wildlife, land use changes, and determine the impact of land use changes on wildlife, forestry, erosion, and finally we have got something we can start building an information center on because I would defy any agency or organization to put together a program without some good, sound information for which to direct that program. Believe me, it has opened our eyes and it has made a lot of difference at least to us when it comes to the PROCEDURES, the NRI, and some of the data bases that the Department has put into this system have changed our direction as how we approach addressing the resources.

Also what came out of the RCA effort was target. To some it is a blessing, to some it has been a curse. I think primarily some of the curse has been a misunderstanding but I am only going to address it for Missouri and you can look at it the way you like in your state. I want to give credit to Director Gale and the Department. I think it was about three years ago that Larry made a speech. In essence he said, if we are going to address wildlife in the state and the wildlife habitat, we better take a look at soil erosion. It was about that same time that we established our first target area in the state. As a result of that, we looked at soil erosion and how we can address soil erosion and yet improve our wildlife habitat. As we get into some of our evaluations, it may not be scientific, but you're never going to convince me that the two don't go hand in hand. One of the things that was done by the Department that was tried that has proven beneficial that we see so many benefits in and support it, and Bob will talk about it in a little more detail, is that they assigned what we call a Private Land Specialist to our targeted areas. We now have three targeted areas and basically three Private Land Specialists. If I can use the term, we look upon that person as what we would call our Area Biologist. Now I appreciate that he is a Department employee and whatever but there is a partnership that they don't mind and we don't mind but we look at him as kind of our Area Biologist. Why I talk about Area Biologist, on our administrative areas that we have, we have an Area Conservationist, and area staff and they cover 12-14 counties. We have an Area Engineer, and Area Resource Conservationist, and now if we can use the term what we look at as an Area Biologist. That has paid tremendous dividends. It has been a program that I would certainly encourage any state to take a look at because, if nothing else, it has made our people aware of wildlife and forestry as a resource. Too often, we talk about cropland erosion, we talk about cropland and pasture and I'll have to admit, sometimes we forget there are other resources out there like the forestry, wildlife, fisheries, and so on and so forth.

The presence of those people have made our people aware that wildlife is part of the conservation planning and application process. You'd be surprised at the introduction of warm season grasses for wildlife habitat that we have been able to create. Even on the part and the awareness of the farmer has been tremendous. I can take you into our targeted areas and our people in those targeted areas have a better appreciation because of that emphasis and that presence of that person than, I would say, outside of our targeted areas. That may not be fair in comparison but it is there and we notice a tremendous difference. The other thing that was brought about in the targeted areas is the demonstration farms. We work closely with the Department of Conservation and basically the demonstration farms in those areas show that we can control erosion and yet improve wildlife habitat. I guess they are having their first tour this year and, because of that presence, those farmers also have a greater appreciation for wildlife in that particular area. One of the things that was introduced and I'd like to take a little bit of time if I may, and I'll leave this copy up here. Bob, you may have some copies. It is what we talk about as our Wildlife Habitat Appraisal Guide (WHAG sheet). Some of them refer to it in a little bit different tone but I don't dare repeat it. In essence, what it boils down to is that it is a guide and if you take a look at it, you'll notice it doesn't have an SCS emblem on there. It has SCS and MDC. It was developed as a joint effort between the two agencies. It is nothing more than an appraisal guide for our people to complete to find out the wildlife habitat quality index on that particular farm and what it will take to improve that wildlife habitat quality. This document here has probably brought to light as a training tool and an awareness tool of our people of what it would take to address that wildlife. Sometimes we make the assumption that farmers are not interested in that wildlife habitat and when we get that into our heads, we are wrong. In my opinion, very few farmers have a lack of interest in that wildlife and it is surprising when you put the guide together and talking to some of those landowners that with a little bit of effort what they can do to improve that wildlife habitat on that farm. Bob is going to go into a little more detail because, with the Department, we have computerized these to find out the impacts of applying soil conservation on the land and its beneficial impact to wildlife. I'll leave it here and if you have any questions, either Bob or I will certainly be happy to talk with you in a little more detail.

Let me go back a little bit to the targeted areas to show you the partnership we have. Our two targeted areas are in the northwestern part of the state. It is also an area where we are losing at a rapid pace, a lot of our timberland, marginal land that is being converted to cropland. Some of it is so steep that the high cost of applying conservation practices is outrageous and, therefore, a lot of conservation practices are not being applied. If you go back and compare some of the old photographs with some of the present photographs, you'll see that a lot of

the area has been completely void of timber. Northwest Missouri State University has installed a wood burning energy plant and has taken a look at the forestry resources in the northwestern part of the state. The Department recognized that this is a vanishing resource in that area and as it vanishes, we are also losing wildlife habitat and we are also addressing more soil erosion. We're opening ourself to soil erosion. They have also decided to locate a forester in that particular area, that we would work together with the University and with the farmers in that area about maintaining that forest land. You'd be surprised, no longer than we have been talking about that, we haven't won all the battles, I'll grant you, but you'd be surprised how it made us aware, the landowners aware, and the University from a public relations standpoint of being careful that they don't clearcut marginal land because they are also interested in their image. You'd be surprised that no longer than it has been, the positive impact it had on people thinking about timber management or not clearing some of that land. This is an area that we are working into and, like the Private Land Specialist, I see a tremendous amount of benefit and it is a partnership that we can work together on and, if nothing else, just the presence and the awareness will make some positive changes in that particular area.

Let me talk about the Private Land Specialists in two other counties. We've seen a tremendous impact there, a positive benefit and, again, if the states have never thought about this, I would encourage it because there is a partnership there that in our situation has paid tremendous benefits. I want to compliment Department from the standpoint that they recognize soil erosion as a problem on private lands but they also recognize soil erosion as a problem and a concern on their own lands. As far as I know now, we have developed conservation plans to apply conservation practices on about all the Department's land. As they purchase new land, we are continually in the process. I think the thing that we appreciate is the fact of not only controlling erosion but they have said, "Look, if you have some practices that you want to demonstrate that will control erosion and have a benefit to wildlife, let's try and show the landowners in that particular area and let's use our farms for that particular reason." I'll tell you what, we have certainly appreciated that effort because sometimes we get hung up on doing various conservation practices one way and there are a lot of ways that things can be done that can also benefit wildlife. If I can use a little bit of SCS jargon, for example, we have what standardly we have called broad base terraces. That is just a standard terrace that normally you see that is cropped front side, back side, top and the whole bit, but there are two kinds that we think ought to be promoted to benefit wildlife and also control erosion. One is the grassbacked which typically has the back slope is seeded to warm-season grasses. We are also now taking a look at narrow-based terraces which is dirt pushed up like a narrow ridge but both sides are seeded to warm season grasses which will control erosion and benefit wildlife. There

are other practices that we have been able to demonstrate, contour strip cropping, in some states that's accepted, but in Missouri it hasn't been accepted, but there is a place for it.

I think the thing we really like is that we are able to demonstrate with the Department on their own land, erosion control and things that will also benefit wildlife. We are taking a look at the forestry, the pasture and some of the other resources, but this has been a tremendous step and something we certainly appreciate the opportunity to be a partner in and to share in this conservation.

Streambank erosion - I doubt if there is a state in here that doesn't have streambank erosion problems. This is something that we have taken a look at. One of our concerns is the loss of stream corridors in this state and we have been working with the Department of Conservation. And I understand we are about ready to develop a publication. Yesterday we were talking about being able to train and educate our own employees in the protection of streambank corridors. Our next step is how we are going to inform the public on the protection of that stream corridor. It is about like timberland in this state. It is disappearing at a very fast rate and so this is the other thing. It is a new partnership in a new area but it is part of this thing of sitting back and looking problems and saying, "Hey, how can we work together on this."

Information/education - I think the Department of Conservation is second to none when it comes to information/education activities in the state when it comes to working with teachers and they are always looking and asking, "Hey, do you have anything that we ought to incorporate into our program in soil and water conservation and erosion control." And we have added things to it. It is an area that they are addressing so well. Some people ask why aren't we doing more through the districts and we said, "Why duplicate an effort that is really being addressed anyway. Let's take our resources and our efforts and work together in another area." I guess these are just some of the things. Bob, will pick up on a few others. Some of the things we're working together but I guess the bottom line still in our philosophy is that sometimes we need to step back and look at that donut. Let's don't be so selfish to look at the hole in that donut because, as they say, "The more you concentrate on that hole, the bigger the hole gets and the less donut you end up with." There's enough problems that all of us can work together to address those and let's don't be so selfish that we worry about who gets the credit because the credit will come out the other end of that line. And I guess, with that, Dean, they are certainly welcome to take a pot shot at me, disagree with what I said or anything else or if you want me to explain more.

Gene Ludlow: I don't have a question but I would like to make a comment that the cooperation that was established with the Department of Conservation is very commendable, particularly that

you are using your data base. I think that this is probably one of the first uses in the East at least that has been found to work soil conservation. It sounds like you've got it all together.

Russ Mills: The data base is very important and we could have been selfish in this state and kept our own data bases but that wasn't the way but I think the procedures in this NRI was really the first thing that got us to thinking about bringing together these data bases.

Ron Skoog: How successful are you in working with the private landowners. I assume that farmers are more difficult to work with than other kinds of landowners. Is there some percentage, for example, of the farmers you contact who are willing to work with you on wildlife habitat?

Russ Mills: I hope Bob has got some figures. If he doesn't, he better make up some pretty quick. But let me come back on this, Ron. I was jazzing him a little bit. We found that and I'm talking now about our targeted areas, and I think you have to appreciate the difference we are finding in our target areas is the fact that we've got more emphasis on technical assistance. Let's don't take away that there are more bucks in there for cost sharing, a little bit of information/education going on, but there is no question in our mind that we are seeing more people aware and applying those practices that also benefit wildlife. There is a tremendous increase in just the establishment or application of warm season grasses, for example. There is a greater awareness that sometimes we don't need to take out that woody draw for that underground outlet for that terrace system, and people are starting to think about this and I still think it is because of the fact that we were able to take that targeted effort and we put the emphasis on it and there is definitely an increase in the number of people we work with. We work with probably, from last year, I want to say, I don't remember the exact figure, 60-70% more people than we ever have in the past in that particular area. The other thing that I might say is that through the Department of Natural Resources and the commission of districts here, the Department of Conservation also provided funds for two no-till drills for warm season grasses. One of these went into the targeted area for the application of warm season grasses and, I guess, from all reports, it is well used. In fact, there is more demand for it than one drill will provide. So there is no question in our minds that it is proven. I think from some of the facts that we found from this Wildlife Habitat Appraisal Guide, it has also shown that and there is definitely a distinction between the targeted and the non-targeted areas in this state.

Gene Ludlow: I'll ask this question and take my chances that you'll meet me out in the hall and the two of you gang up on me. Mr. Seinwill can perhaps address this too. What do you think are the chances of going either nationwide or statewide and have PIK acres left unmowed.

Russ Mills: Bob, do you want to answer that? I was just kidding.

Gene Ludlow: You're supposed to go the other way. You're supposed to go to Washington. I recognize this is a controversial subject and its been here ever since we had the first soil banking.

Ray Evans: There has been one change this year in Missouri. Last year it was required that the mowing be done by the 15th of July. This year it has been changed to the 15th of August. At this point, we are willing to accept that as real progress. To consider that it never be mowed is something we'll be working on for next year.

Russ Mills: Basically, I think that decision is left up to the states. It could be decided at the national level but I think typically it is left to the states. Let me go one step farther than that. The mowing, and I may be out-of-bounds on this but that's the chance you take. I think the thing that I would be concerned about is also the cover. Whether there is cover or no cover.

Gene Ludlow: After you get done mowing, I don't think there is much you have to do to make that decision.

Russ Mills: I think the cover is also something we need to be looking at. I think the State Committee has taken a look at it.

Gene Ludlow: What level then would the state people start working? I recognize too that ASCS probably has more to say about this than you all do but you just tell their agents after the fact, but is there a state board or something?

Russ Mills: Yes, but they do it in consultation and concurrence with us and the final decision really is back with the State Committee of ASCS, but it is done in a partnership and there is a tremendous working relationship with the present State Committee and the Soil Conservation Service and the Department. Jerry, if you want to address this from the national level.

Jerry Seinwill: What happened in PIK last year was that we had a multi-billion dollar program that got put together almost before anybody believed it, before we could believe it would pass, it was in effect and we certainly didn't accomplish the conservation activities that we might of if we had had our shirts up a little higher. This year, recognizing that, although the PIK program is much, much smaller, the Department between ASCS, who really is the banker and controls PIK, and SCS, and we provide technical advice to them like we do to a guy with a 40-acre woodlot. This year, I believe there was a departmental regulation that the ASCS State Committee shall go to the State Conservationist and the State Conservationist shall set those limits on what is adequate

cover, can there be mowing, what conditions and so forth, and we had some State Conservationists who really did a good job. They did really lay down specifications that would come as close as possible of guaranteeing good conservation on that land and we have one State Conservationist in a southern state who still is licking his wounds. It went to the members and the members went to ASCS, they to the Department, the Department back to Pete, and, very candidly, we had to back off a little bit. Probably next year rather than go through that, we are going to be back into the voluntary mode and we will advise and ASCS will decide. But it is that State Committee that has the final say on it so if you've got any lines on them, those are the ones to pull. Maybe, and again I am being optimistic and hopeful, maybe some of these things will get built into the 1985 Conservation Bill to tie some of these commodity support and credit practices back to the necessary conservation.

Gene Ludlow: Working on it for 30 years now. Hope we get the in line with it soon.

Jerry Seinwill: Thirty years in this business is but a little blip on the horizon.

Gene Ludlow: For those of us here, that's a pretty big blip.

Jerry Seinwill: I agree with you whole-heartedly but the fact that some people who you wouldn't believe are even grudgingly thinking about some of these things is a point of encouragement.

Gene Ludlow: I am not being critical. We are looking for a solution and your opinion because you are probably closer involved than the rest of us.

Dean Murphy: The next speaker is Robert Miller with the Missouri Department of Conservation. Bob was born and raised in Missouri. He has a BS in wildlife management from the University of Missouri-Columbia. He has worked for the Missouri Department of Conservation since 1973 as an Area Assistant, a Mourning Dove Bander and Assistant Area Manager of Fountain Grove and Schell-Osage Wildlife Areas. Bob is now the Private Land Program Coordinator in the Division of Wildlife, responsible for the Department's Expanded Private Land Pilot Program.

ROBERT D. MILLER

Thank you, Dean. I won't tell any stories about Russ since there were so many questions and we are running a little behind. I'll go on into it. I would like to address the question about the number of landowners interested in wildlife as compared to the other. I am not sure how many cooperators the Soil Conservation Service has in Missouri in landowners annually, but in our Food and Cover Program, landowners specifically asking for seed and planting materials, there are better than 20,000 now. Starting back in 1975, we had about 1,900 a year so it is continually growing.

Severe weather during the winters of 1977-78 and 1978-79 devastated upland wildlife populations such as bobwhite quail. People immediately began requesting grain to feed wildlife.

Wildlife programs are designed to provide adequate year around food and cover to insure winter survival, because emergency feeding programs are normally unsuccessful. The Department of Conservation (MDC) Field Service Section has administered a food and cover program with the assistance of the Soil Conservation Service (SCS) and other agricultural agencies since 1937. However, with one Field Service Agent serving 9-11 counties, the public awareness of and participation in this program could not be achieved to offset habitat destruction and wildlife population declines during severe winters.

In 1979, the PAWS (Planning Ahead for Wildlife Survival) Program was initiated to improve wildlife habitat on private land by increasing public awareness and providing additional seed and planting materials. The SCS, ASCS and the University of Missouri-Columbia Extension Service because of high public visibility in each county and previous involvement in MDC food and cover programs were asked to extend the PAWS Program to landowners. These agencies welcomed MDC's increased involvement and became a major landowner contact for this program.

A major development from the increased joint MDC-SCS effort was the "Cooperator Day" held annually at each county SCS office. The SCS District Conservationist (DC) schedules landowners to meet with personnel from both agencies to conduct farm-wildlife planning. This joint effort results in coordinated farm-wildlife planning with management recommendations tailored to individual farm operations. The interest in Cooperator Days has grown and the program was expanded to two days. In addition, farm visits are sometimes scheduled if on-site evaluations are needed to finalize the farm-wildlife plan. This program has resulted in improved cooperation and understanding by personnel of both agencies.

Although the PAWS and Field Service Programs are well received, habitat conditions continue to decline on the 95% of the state that is privately owned. A mail-back questionnaire sent to over 9,200 Missouri farm operators in 1980 provided information for improving the private land program. Using data from the survey, MDC initiated a 5-year Expanded Private Land Program to evaluate alternatives for improving habitat by (1) increasing landowner contact coupled with providing free seed and seedlings; (2) establishing two demonstration farms to document the economics of farming practices recommended by MDC staff; (3) assigning two specialists to work with the SCS in the 21 critical soil erosion target counties; and (4) providing specialized equipment to landowners for planting native grasses. MDC also would document the effects of these alternatives on habitat quality and make a final recommendation on private land program direction in five years.

Technical Advice and Planting Materials

Private Land Specialists were assigned to three pilot counties (Lawrence, Johnson, and Harrison) to assist landowners with wildlife management. These specialists provide technical assistance and inform the public concerning services available from MDC such as: planting material (trees and shrubs), food plot seed, and technical assistance for integrating wildlife habitat into farming operations.

Most landowner contacts for this program originate with the SCS. SCS personnel have an excellent opportunity to incorporate fisheries, forestry and wildlife management into farming operations during the preparation of the conservation farm plan. Many landowners mistakenly believe that wildlife management will be costly and hinder farming operation. Landowners are more willing to consult with the MDC specialists in these counties if wildlife management is not costly. For example, a landowner not interested in planting a shelterbelt for wildlife may be encouraged to plant a windbreak for livestock or farm buildings. The Private Land Specialists discuss farm management as a means for indirectly improving fish, forest and wildlife resources.

Agricultural Liaison: The purpose of the agricultural liaison position is to increase communication and cooperation between agricultural agencies and the MDC. Habitat problems can be recognized and diminished by providing an awareness of the common goals of agency programs and how they jointly affect soil, water and wildlife conservation. Much of this liaison work with other agricultural agencies is at the policy level resulting in policy changes that positively impact wildlife, fisheries and forestry.

Both agencies have conducted reciprocal orientation and training sessions to improve interagency understanding and cooperation. The SCS provided two resource conservation planning conferences training MDC public and private land management personnel in SCS organization, duties, soil loss calculations and general farm planning. MDC reciprocal training sessions for SCS personnel concentrated on Department organization, programs and goals. Conservation planning on all MDC lands for erosion control was greatly expedited by these training sessions. MDC also conducted a private land prescribed burning seminar for SCS field personnel so they could provide improved assistance to landowners with native warm season grasses.

The Agricultural Liaison Officer coordinated arrangements with two Soil and Water Conservation Districts to provide MDC grant funds for the purchase of no-till planting equipment. These drills can be used to plant native warm season grasses and other crops without conventional tillage methods, thus reducing soil erosion and improving wildlife habitat.

Native Warm-Season Grass: Native warm-season grasses make excellent wildlife habitat and can have positive benefits on the farming operation. Properly managed warm-season grass forage systems, including big bluestem, indiangrass and switchgrass, are extremely beneficial to wildlife, livestock, and erosion control. These grasses are adapted to high summer temperatures, low rainfall and grow during July and August making them available to supplement cool-season pasture systems that become dormant during summer months. Cattle can be kept on actively growing forage all summer by using a rotation system that includes native warm-season grass and cool-season grass. Ground nesting birds such as the pheasant and bobwhite quail benefit from native grasses because midsummer haying dates allow completion of nesting. MDC has seven special drills designed to plant native grass seed which cannot be planted by conventional equipment and this specialized equipment is available to landowners. The SCS has taken a major role in promoting pasture management systems utilizing warm-season grasses and participates in joint MDC-SCS farm tour seminars for landowners.

Demonstration Farms: Two demonstration farms are being managed to show economically sound farming operations that are also beneficial to insure soil, water, wildlife and other natural resources. Wildlife populations, soil erosion and farm economics are being monitored on these farms. Farming practices demonstrated on these farms include farm woodlot management for firewood and marketable timber, pond and fisheries management including cage reared channel catfish, a cattle operation using warm season grasses to supplement cool-season pasture, contour and strip cropping, minimum till and no-till farming, and grassed backslope terraces. A SCS study by David W. Beck in Iowa revealed a 22.5% nesting success of pheasants on grassed backslope terraces. Another study conducted by the SCS documented a greater nesting intensity of songbirds in no-till fields than conventionally tilled crop fields.

SCS personnel were invaluable in establishing these demonstration farms and continue to take an active role in farm management and landowner tours. The farms are being used by SCS for staff training, soil erosion vs. crop yield studies, and landowner tours. With SCS assistance, MDC has been able to demonstrate that farm management emphasizing soil, water and wildlife conservation will result in little or no loss to net income.

Critical Erosion Control Target Areas: Nationally, Missouri is surpassed only by Tennessee in the amount of soil erosion on cropland. Erosion control is critically important to fish, forest and wildlife resources and the long-term productivity of the soil.

Two 21 county areas in Missouri, the Platte Territory Critical Erosion Control Project and the Green Hills Critical Erosion Control Project, have been chosen as federally funded erosion control projects. The Soil Conservation Service has invited the

MDC to participate in these projects because wildlife habitat loss and soil erosion are so closely related. A Private Land Specialist was assigned to each project to work with the SCS on farm planning that benefits both erosion control and wildlife. Technical assistance, seed and other planting materials are also provided to landowners.

The primary objective of the MDC Private Land Specialists is to emphasize methods and techniques for incorporating fish, forest and wildlife principles and practices into farm conservation plans by training SCS personnel on soil conservation techniques and alternatives that provide secondary wildlife benefits. Training in the target areas have included sessions on wildlife habitat needs, windbreak and shelterbelt planning, fisheries management, timber management, and incorporating wildlife into conservation farm plans. In addition, training sessions were held on the uses of plants available from the SCS Plant Materials Center, MDC nursery, and other sources, which have special fish and wildlife values. New plant materials are being evaluated by the SCS and Private Land Specialists including northern white cedar for shelterbelts and no-tilling field crops into downy brome.

Other responsibilities include providing assistance to District Conservationists in the evaluation of wildlife resources; studying existing wildlife problems and recommending solutions; reviewing field office technical guides; and assisting in an aggressive information program.

News articles and advertisements help publicize this cooperative SCS-MDC program. The SCS has publicized the program through newsletters, articles and in the recent publication Soil Conservation Systems for Missouri, outlining wildlife, fisheries, and forestry benefits from farm management that emphasizes soil conservation. The relationship between soil conservation and forestry, fisheries and wildlife management is also outlined in the MDC publication Farming and Wildlife In Missouri, developed by the Private Land Specialist.

The Private Land Specialist position serves as a local liaison position between MDC, SCS and other agricultural agencies and has greatly increased the communication and understanding among all agencies' field representatives. These specialists also serve on Resource Conservation Development Committees and Technical Advisory Councils and have established soil conservation-wildlife demonstrations throughout the target areas.

Wildlife Habitat Appraisal Guide: Because both agencies were serving the same clientele, and had the common goals of directing resource management towards the proper land use, a unified effort by both agencies was needed to 1) evaluate habitat on private land in a consistent and repeatable fashion as a basis for making consistent management recommendations; 2) predict the effect of planned management recommendations on habitat quality; 3) display

in a graphic form to landowners the impact of land management on wildlife habitat quality; and 4) document implemented conditions. Standards and specifications that guide wildlife habitat management recommendations were developed by SCS and MDC that provide for a minimum acceptable habitat quality on farms receiving technical assistance. These standards were developed to describe minimum acceptable habitat quality, quantify objectives for achieving and reporting habitat improvements; and monitor progress in achieving objectives. This system is known as the Wildlife Habitat Appraisal Guide. Guides have been developed for the bobwhite quail, white-tailed deer, cottontail rabbit, fox and gray squirrels, mourning dove, mallard duck, Canada goose, eastern wild turkey, ruffed grouse, and the greater prairie chicken. SCS field personnel evaluate habitat conditions with the bobwhite quail WHAG on each field serviced.

A computer summary of these evaluations is provided to field staff as an inventory system of both wildlife habitat and farm management. With this information, soil conservation-wildlife can be monitored and changed to address the most critical resource needs. This interagency approach has shown that many measures to improve soil and water conservation also improve habitat quality.

PL566 Watersheds: MDC and SCS have cooperated on PL566 small watershed planning to evaluate fish, forest and wildlife impacts of watershed projects. Procedures developed to assess the impacts of watershed projects on wildlife habitat have also been applied to the planning and management of MDC wildlife management areas.

Summary: Although the increased interagency cooperation is relatively new, the relationship between wildlife and the soil is not a new concept. As early as 1950, a MDC study "Some Specific Relationships Between Soils and Wildlife", conducted by Bill T. Crawford identified a direct relationship between soil fertility and the body weights of raccoons; the more productive the soils, the larger the raccoons. A similar study found that rabbit weights varied considerably in different parts of the state. Again, the difference in the quality of the soil was directly related to the size of the rabbits. Leg bones of rabbits from parts of the state having better soils were up to 12 percent larger than those of rabbits from the regions with lower fertility soil. Calcium and phosphorus concentrations in the bones corresponded to fertility levels of the soil. Soil relationships were also documented on muskrats, opossums and fox squirrels. These studies further emphasize the need for interagency cooperation and total resource management and document that soil and water conservation also benefit wildlife.

Both MDC and SCS are receiving many benefits because of their cooperative working relationship of which most beneficial are the broadening of landowner clientele, increased public awareness and interagency training. Also, because of both agencies'

willingness to work cooperatively, we are having greater impact on improving soil, fish, forest and wildlife resources in Missouri.

Dean Murphy: We've got time for one or two questions for Bob if there are any.

Harvey Nelson: How many staff people do you have involved in these positions.

Bob Miller: Right now we only have eight because it is a pilot program set up for five years. We've just reached the three-year mark. It will be completely evaluated throughout the time and at the end to see what modifications or changes in the existing programs need to occur to better address habitat needs.

Gene Ludlow: Did you find anything lacking in your PROCEDURES computer data system in using it for HEP. Is there anything you identified that you would like to have that wasn't in there?

Bob Miller: I can't answer that very well because David Urich was more involved with the PROCEDURES. I haven't worked very closely with the PROCEDURES it. The only thing I have looked through is this habitat evaluation.

Dean Murphy: For the rest of the morning, Tom Roster is going to accomplish in two hours what he usually does in four so we need to get on with this. Tom Roster is an independent Ballistics Consultant and Author. He is best known to this country's hunters in his capacities as the Reloading Editor of The American Shotgunner, Technical Editor of Skeet Shooting Review, and Shooting Editor of Fins and Feathers magazines. Through Oregon Institute of Technology where he was formerly an Assistant Professor, and through the U. S. Fish and Wildlife Service where he served as a Ballistics Specialist, Tom has conducted shotshell performance and water lethality research for the past seven years. During that time, he assisted in the design, administration, and data analysis of all five of the most recent steel vs. lead field shooting tests. Roster currently serves as a professional Consulting Ballistician to three ammunition and shotshell component manufacturers and the Cooperative Lead Poisoning Control Information Program. This program is funded jointly by 30 state wildlife departments, four corporations, and the National Wildlife Federation. In his exterior and terminal ballistics research and shooter training programs, Tom has personally fired over 105,000 rounds of steel shot to date. Over the last eight years, Roster has spent about 120 days afield each year testing new and experimental steel shotshell ammunition. In that time, he has bagged over 15,000 ducks and geese for scientific purposes.

ASSOCIATION OF MIDWEST FISH AND WILDLIFE AGENCIES

REPORT OF THE TREASURER

Hannibal, Missouri

July 16-19, 1984

Balance of assets brought forward from 1982 -- $10,956.58.

Total receipts for the business year 1983, including back dues for one member and interest on Certificates of Deposit -- $789.83. The 1983 annual dues were suspended by the Board of Directors. Reference 1982 Minutes, Audit Committee Report.

Total expenditures for the Lexington, Kentucky conference -- $500.00. $5,000 was contributed to a fund administered by the Wildlife Management Institute to coordinate the revision of the 1985 Food and Agriculture Act. Reference 1983 Minutes, Ad Hoc Project Funding Committee report.

The status of the Association's funds at the close of business for the year 1983 relate total assets of $6,246.41.

Certificate of Deposit #4405 in the amount of $1,500 with the First National Bank of Pratt, Kansas, and a cash management account with Waddell and Reed, Inc., Kansas City, Missouri, remain in effect.

Balance of the 1983 checking account forwarded to the 1984 account -- $2,724.55.

IRS income tax form 990 was prepared and submitted.

The status of Association funds as of July 1, 1984 relate total assets of $7,315.23, which includes the 1984 dues from eleven (11) states, three (3) provinces, and interest on certificates of deposits. The current 1984 checking account balance is $3,718.39.

The official Association financial ledger showing receipts and expenditures has been made available to the Audit Committee.

Fred Warders, Treasurer
Association of Midwest Fish and
Wildlife Agencies

Association of Midwest Fish and Wildlife Agencies

TREASURER'S REPORT
1983 Transactions

TOTAL ASSETS BEGINNING FEBRUARY 1, 1983		$10,956.58
RECEIPTS 1983:		
*Annual Dues	$ 100.00	
Interest on C.D. #4405	233.24	
Interest on Cash Mgmt. Acct. . . .	456.59	789.83
TOTAL AVAILABLE ASSETS		$11,746.41
DISBURSEMENTS 1983:		
Assoc. Advance to Kentucky	$ 500.00	
Wildlife Mgmt. Institute	5,000.00	5,500.00
TOTAL ASSETS, JAN. 31, 1983		$ 6,246.41

ACCOUNTING OF ASSETS, DECEMBER 31, 1983	
Cash in Checking Acct	$ 2,724.55
Certificate of Deposit #4405	1,500.00
Cash Mgmt. Acct. #1212990-4750	2,021.86
TOTAL ASSETS, JAN. 31, 1983	$ 6,246.41

1983 ACCOUNT CLOSED

*1983 annual dues suspended. Reference 1982 Minutes, Audit Committee Report. 1981 dues for one member were in arrears and now paid up.

RESOLUTION NO. 1

WHEREAS, soil erosion has been identified as a major agricultural crop production problem which adversely affects fish and wildlife resources; and

WHEREAS, the "National Agricultural Soil Protection Act" (NASP) (H.R. 5200) has been introduced in Congress in an effort to reform federal soil conservation policies; and

WHEREAS, NASPA addresses the need to improve economic incentives for farmers presently cultivating highly erodible land (classes IV 3 - VIII) to adopt long-term soil conservation efforts; and

WHEREAS, NASPA encourages a regional solution presently unattainable in existing soil conservation programs; and

WHEREAS, NASPA places commodity programs and natural resource programs under the same USDA Under Secretary to provide better coordination between production control and soil conservation activities;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, strongly supports H.R. 5200; and

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to member states for submission to their Congressional Delegations and be transmitted to appropriate Congressional committee members by the Association President.

RESOLUTION NO. 2

Funding of U.S.D.A. Water Bank Program

WHEREAS, the U.S.D.A. Water Bank Program (WBP) provides annual payments to landowners to preserve and improve wetlands and adjacent land for ten-year periods; and

WHEREAS, WBP conserves surface waters; preserves and improves habitat for migratory waterfowl and other wildlife; reduces runoff, wind and water erosion, stream sedimentation, and new acres of land coming into production; contributes to flood control, improves subsurface moisture and water quality; promotes comprehensive and total water management planning; and

WHEREAS, the House of Representatives has appropriated $8.8 million for 1985; and

WHEREAS, $20 million annually would be necessary to allow renewal of existing contracts and $30 million to provide a viable WBP at a level of slightly less than 2 million acres of U.S. farmland; and

WHEREAS, the WBP is recognized for its cost efficiency and benefits to waterfowl, songbirds, fur bearers and other farmland wildlife;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, respectfully urges Congress to appropriate $30 million annually in order to provide an effective and viable Water Bank Program.

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to member states for submission to their Congressional Delegations and be transmitted to appropriate Congressional committee members by the Association President.

RESOLUTION NO. 3

DEPARTMENT OF THE INTERIOR APPROPRIATIONS ACT: STEEL SHOT

WHEREAS, each year millions of waterfowl die from lead poisoning after they ingest lead pellets deposited by waterfowl hunters; and

WHEREAS, a number of other migratory birds, including endangered bald eagles, are also documented dying from lead poisoning; and

WHEREAS, since 1978, language has been incorporated into the Department of the Interior's (DOI) Annual Appropriations Act that prohibits the U.S. Fish and Wildlife Service (USFWS) from enforcing steel shot requirements or zones without state concurrence; and

WHEREAS, this language has effectively hampered the USFWS's ability to take effective action on the pervasive problem of lead poisoning and has caused the Department of the Interior to retreat from its once strong leadership on steel shot; and

WHEREAS, this language is also in conflict with several major statutes that the DOI is charged with enforcing, including the Migratory Bird Conservation Act and the Endangered Species Act; and

WHEREAS, since 1979, the International Association of Fish and Wildlife Agencies has been on record opposing this type of restrictive appropriations language;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, opposes the Department of the Interior Appropriations Act language that prohibits the USFWS from enforcing steel shot requirements or zones without state concurrence; and

BE IT FURTHER RESOLVED that the Association of Midwest Fish and Wildlife Agencies urges the Congress to delete language which restricts the U.S. Fish and Wildlife Service from enforcing steel shot requirements or zones without state concurrence.

RESOLUTION NO. 4

LEAD POISONING/NON-TOXIC SHOT

WHEREAS, lead is a toxin and an environmental contaminant; and

WHEREAS, most lead in waterfowl habitats is deposited as a result of the hunting of waterfowl; and

WHEREAS, the potential of lead poisoning exists wherever lead shot is used for waterfowl hunting; and

WHEREAS, the ingestion of spent lead shot results in the lead poisoning of waterfowl and secondary poisoning of other species, most notably eagles; and

WHEREAS, each state shares in the responsibility for the abatement of lead poisoning because a migratory bird which dies of this disease in one state is a loss shared by other states; and

WHEREAS, water level manipulation, cultivation and similar techniques that may reduce the potential of lead poisoning in waterfowl are short term solutions; and

WHEREAS, presently the only effective non-toxic substitute for lead shot for the hunting of waterfowl is steel shot;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, urges the Department of the Interior, U.S. Fish and Wildlife Service to give strong consideration to the complete use of non-toxic shot for waterfowl hunting; and

BE IT FURTHER RESOLVED that the Association of Midwest Fish and Wildlife Agencies urges its member states to work closely with the Department of the Interior, U.S. Fish and Wildlife Service, to establish plans to implement regulations requiring the use of non-toxic shot for waterfowl hunting not later than 1989; and

BE IT FURTHER RESOLVED that two copies of this resolution be transmitted to the Secretary of the Interior and the Director of the U.S. Fish and Wildlife Service.

RESOLUTION NO. 5

ENDANGERED SPECIES ACT FUNDING

WHEREAS, the Endangered Species Act of 1973, as amended in 1982, is a vital and successful part of the nation's conservation program; and

WHEREAS, authorization for funding the Act will terminate at the end of fiscal year 1985; and

WHEREAS, continuation of the states' essential part in conservation of endangered species is dependent on adequate, stable funding of the grants-in-aid program authorized by the Act under Section 6;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, urges the Congress to authorize continuous funding for Section 6 of the Endangered Species Act in an annual amount not less than the $6 million as originally authorized; and

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to the International Association of Fish and Wildlife Agencies for use at the appropriate time.

RESOLUTION NO. 6

H. R.1797 BANNING LEG HOLD TRAPS

WHEREAS, population control is of vital importance to the wise and scientific management of fur bearing species and other wildlife in order to maintain the health and stability of their populations; and

WHEREAS, the utilization of the annual population surplus of fur bearing species is a basic principle of wildlife conservation in the United States; and

WHEREAS, the leg hold trap has been identified as the most effective device for capturing the broad range of fur bearer species and is responsible for 70% of the annual fur bearer harvest in the United States; and

WHEREAS, a total ban on trapping would cripple the American fur trade which contributes $1.2 billion annually to the U. S. and world economies and provides work for one-quarter million Americans, and nearly one-half of the fur industry's business is dependent on the sale of wild caught furs; and

WHEREAS, legislation now before the U. S. House of Representatives, (H.R.1797) would effectively end interstate and foreign commerce in leg hold traps, and fur taken in these devices and would, therefore, affect most trapping in the United States;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, expresses strong opposition to H.R.1797; and

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to appropriate Congressional committee members.

RESOLUTION NO. 7

WHEREAS, Director Larry R. Gale and his associates of the Missouri Department of Conservation have provided members of the Association an outstanding program and display of hospitality; and

WHEREAS, the meeting location has provided excellent facilities and an opportunity to visit an area of historic and natural resource significance;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, commends the Missouri Department of Conservation for organizing and conducting a most successful annual meeting.

Mr. President, I move acceptance of this resolution by acclamation.

Thursday, July 19, 1984
Business Meeting

Dean Murphy: If you want to get home today, let's get started.

Larry Gale: We'd like to have the voting representatives and the people who are giving reports to come near the front if you will please. Before we get into the formal part of the meeting, I would like to call on Mrs. Beverly Morgan for just a moment.

Beverly Morgan: Good morning! I am the Sales Director here at the Holiday Inn and on behalf of the whole staff, the whole crew, bus boys and everyone, we hope that we have enjoyed your stay here and maybe someday you will come back to see us. Thank you, I have enjoyed working with the Committee too. They were fantastic. Thank you.

Larry Gale: Thank you, Beverly. You and the whole staff have been very accommodating and I am sure we have all enjoyed our stay. You want to have the drawing now?

Larry Gale: The meeting will officially come to order now and we will have the roll call.

Dean Murphy:

Ohio: Max Duckworth

Michigan: Ron Skoog

Indiana: Ed Hansen

Kentucky: Carl Kays

Wisconsin: Jim Huntoon

Iowa: Larry Wilson

Missouri: Larry Gale

Ontario: Absent

Manitoba: Absent

North Dakota: Absent

South Dakota: Absent

Nebraska: Bill Bailey

Kansas: Bill Hanzlick

Saskatchewan: Absent

Colorado: Walt Graul

Illinois: Mike Conlin for David Kenney

Minnesota: Harvey Nelson, "I have Shannon's proxy if that is legitimate." Absent

Larry Gale: Hearing no opinions to the contrary, the chair rules that we have a quorum. We have some tentative agendas up here. They are not complete because a couple of you sent suggestions in after the deadline, after the thing had been worked up, but we will announce those as we go on. The first item of business will be the treasurer's report by our faithful servant, Mr. Fred Warders.

Fred Warders: Thank you, Larry. At the close of business two years ago, Springfield, I think, the conference at Springfield, Illinois, total assets of the Association amounted to approximately $11,000. Now, at that time, there was some concern expressed regarding the assets being too high and that the balance should be substantially reduced in some manner. Now, since then, this has been accomplished in two ways. The first was that the annual dues were suspended last year for the business year 1983, resulting in a total loss of $1,700 to the Association as far as building up the funds are concerned. The second was a $5,000 contribution made this business year to a fund administered by the Wildlife Management Institute to coordinate the revision of the 1985 Food and Agricultural Act. Both of these actions were approved during the business meeting at Springfield and at Lexington, KY. The annual dues, of course, were reinstated this year which will again bring $1,700 back into the cash fund. Now, an annual expenditure each year is $500 which is presented to the host state to help get the conference started, up front money, and so on and so forth. Basically, that is the only expenditure or has been for the last few years to the Association except for special expenditures such as the $5,000 to the Institute. The status of the Association funds as of July 1, 1984, now relate total assets of $7,315.23. This includes the dues from eleven states, three provinces, and interest to date upon your investments. A breakdown of this $7,315.23, total assets, include a checking account balance of $3,718.39, a Certificate of Deposit in the amount of $1,500.00. There is a Cash Management Fund of $2,096.84. A copy of this report and the official ledger, Mr. Chairman, has been presented to your Audit Committee and a copy of the report and also a copy of the ledger will be printed in the annual procedures which is done each year and comparison can be made then from year to year if you so desire. That completes the report unless anyone has questions.

Dean Murphy: May I ask a question? The By-Laws also provide for the Association paying for the printing of the proceedings.

Fred Warders: Yes, subject to approval of the organization, that's right.

Dean Murphy: We will have some expenses on printing and recording.

Larry Gale: Is there a motion to accept the report?

Carl Kays: I so move.

Larry Gale: Second?

Jim Huntoon: Second.

Larry Gale: Any discussion? Questions? Those in favor say aye.

Response: Aye.

Larry Gale: Oppose? None. Report is adopted.

Carl Kays: Mr. President, do we need to approve the minutes of the last meeting since we produced them. Is there any question?

Larry Gale: Have we normally done that? They have been printed and distributed but I would accept the motion that they be approved.

Carl Kays: For the record, I would so move.

Jim Huntoon: Second.

Larry Gale: It has been moved and seconded that the minutes from the last annual meeting be approved. Any discussion of that? Those in favor say aye.

Response: Aye.

Larry Gale: Oppose? None. Motion carried.

Larry Gale: The next report is from the Audit Committee, Mr. Bill Hanslick.

Bill Hanslick: Thank you, Mr. Chairman. I have, at Fred's request, gone over the books very carefully. He's kind of shady looking anyway so you never want to trust him, but I did go over the books pretty thoroughly and discussed it with the Audit Committee. I looked at deposit slips, tax receipt slips, interest account slips, cancelled checks, everything, and the books were precisely in order as I figured they would be. Total assets, according to the audit figures, the total assets beginning February 1, 1983, which is the audit year we were dealing with, were $10,956.58, and I'll drop down to the bottom, the total assets as of the end of January of 1983, I think that was December, wasn't it, was $6,246.41. The books are in order, Mr. Chairman, and I would so move the audit report be accepted.

Larry Gale: Is there a second?

Ed Hansen: Second.

Larry Gale: Second by Hansen. Any discussion, questions. Those in favor say aye.

Response: Aye.

Larry Gale: Oppose? Motion carries.

Larry Gale: The next report is from the Legislative Committee, Mr. Larry Wilson.

Larry Wilson: I have prepared only enough copies of the Legislative Report for each one of the members of the organization states so you may want to share this report with some others. Dave Kenney, did you get one? Spread those back there. I'm going to go through this report quickly and then any particular item any of you would like to discuss, we will enlarge from the discussion. The Legislative Committee met on July 17 here and we put together this report that we are now presenting to the full business session of the conference. I would like to point out committee members include Ron Skoog, Michigan; Larry Shannon, Minnesota; Don McCormick, Kentucky; Walt Graul, Colorado; and myself, Larry Wilson, Iowa. We have deviated a little perhaps from what has commonly been done in the past in preparation of a committee report. Attached are a number of bills that are either pending or either enjoying some more favorable status in Congress at the National level, and most of you, if not all of you, have had an opportunity to review material that the International has sent our to all the agencies providing you with an update and keeping you current on the status of each one of these bills, so there is really nothing new in the contents of this report. I would point out that the D-J Expansion bill, what we refer to as the Expansion bill for the D-J fund, is a part of a rather large bill that I understand was was signed yesterday so the many years, 16 years or so, effort to increase the D-J bill is now law.

The second part of the report is a recommendation that those of us that sat on the committee day before yesterday put some ideas together and we need some direction from all of you and for those of you who have the committee report go along with me and those of you who don't, I'll go over it right quick. The Legislative Committee believes that in order to more effectively function as a useful Association committee, it should increase the involvement of the members. We, therefore, recommend that each state respond to the committee request for information on current pending legislative proposals of mutual interest or concern that may be before each individual State Legislature. This will serve to make the states more aware of each other's legislative items and provide some advance notice in troublesome or positive

legislative proposals. The Legislative Committee would request the information from member states and redistribute the materials to all member agencies in the Midwest Association. I don't know if this has been done before or not but during our committee meeting, we discussed the value of such an effort and we think that could be quite useful to alert other states of pending problems in other areas and also give perhaps some positive ideas for legislation that you might want to develop, but we are not necessarily going to insist that that be done but, as I said, we felt that rather than just provide you with an update on legislative items that you have already been informed of through the mailings of the International, you might want to expand the functions of that committee and add a little responsibility to it and share some ideas and share some proposals that are before current legislatures in each one of the states and there may be some value to doing that but if there is not any interest in doing that, then obviously we aren't going to insist but we thought we would propose that idea and see what you thought about it. If we thought there was some advantages to doing such a practice, we would be more than glad to serve those that are going to be appointed to or will serve on the Legislative Committee. They would merely request each one of the State Director's during the Legislative Session in their states provide them information occasionally about bills that are really unique. If we are talking about a license increase, obviously we are not too concerned about that, but talking to Mr. Shannon the other day, he was suggesting that Minnesota is currently considering a sales tax similar to Missouri. Those are the types of ideas that we are talking about and the routine, everyday items that appear before the Legislature to keep your organization running, we don't think any other state would be interested in other than hoping you enjoy success in that but if there is interest in an unusual item, we think there would be advantages to knowing about that. That is what we had in mind. It's like I say, the Legislative Chairman would request that from the states, the states would respond to him, and then he would redistribute the material to all the other states. What we are asking for here if this is adopted if you agree with it and the report is adopted, then we see that as somewhat of a commitment that you will respond on request during the Legislative sessions for sharing that information with the other states. Before we take action on that, you might want to run through right quickly the report, talk about the D-J Expansion and, again, all the states, I believe, will probably and, hopefully, play a rather active and important role in that.

Wetlands Protection and Acquisition - there is a good update on that and I have three or four pages of these bills and I could really spend a lot of time going through these in detail but I think that it would redundant. Most of you are aware of what's going on so I am going to go through those and if you have any questions about any one, I will go into this a little further.

We start out again with the D-J Expansion, Wetlands Protection and Acquisition, Farm Legislation ("Sod-buster" bill), Crime Victim Compensation (also referred to as the Rodino bill), the effort to take some of the P-R money from the fund and put it into a victim restitution, Leg-Hold Trap Ban. Some of these items have been around for a long time and probably will be. Acid Rain (I don't think it is news to anyone of you that that is not going to receive much attention), Clean Water Reauthorization, Alaska National Hunting Act (a little out of the midwest region but still an item of interest), Wild Horses and Burros (serving in Utah for 17 years in that state agency, I'm always interested to know what wild horses and burros can do to scarce valuable rangeland in the west. I have a Commissioner in Iowa that had it in his heart to buy a couple of those critters and transport them to Iowa. He was a rather successful farmer but he obviously did not become a successful farmer by making decisions like that, he tells me.) Marine Fishing License, Park Service Trapping Rules, and Wildlife and Parks Act. Those are things that are covered in that report and if there are no other questions, I am not going to belabor the committee report. I want to express my appreciation to Wes Hayden, on the Legislative Council of the International, for providing an update on the legislation that we just covered here. I also want to thank all the committee members who participated in the committee meeting. On the back of that report for a different perspective of the D-J bill, I attached a news release from the Outboard Boating Club of America of the Legislative Ledger. It is rather interesting how they evaluate the value of the D-J Expansion. If there are no questions or discussion, Bill Bailey.

Bill Bailey: Do you have a sense of the bill dealing with leg-hold traps? It has been an annual thing for many years now but has it gained any support with the Congress and is it a more serious threat now than in the past?

Larry Wilson: I'll pass on to you what Wes has given to me. "Another item of serious concern to the Association is the bill HR 797 by Representative Clarence Long of Maryland (that seems to be where most of these originate) calling for a ban on interstate or foreign commerce shipment of leg-hold traps or of furs from animals caught in such traps. Hearings have twice been scheduled and then cancelled by the House Health and Environment Subcommittee chaired by Representative Henry Waxman. The latest date to be picked for an examination of that measure is August 3, but with no guarantee that it will stand." As far as increased support, he didn't evaluate that but from the materials, I think that it is a rather insidious problem that has slowly but consistently grown.

Larry Gale: This bill did have a great number of sponsors this year, more than any that I have known of in the past.

Steve Cole: Over a hundred sponsors.

Larry Wilson: I think that there are some things that just don't go away. I am sure Directors and Chiefs are aware of little problems in their own state that just seem to keep coming and coming and I think this is the same type of problem for the International. It is applicable to all of us, certainly. I think it is one for concern even in western states even though there is a little different attitude about those types of things and they experience the same kind of public pressure. Any other questions? I move that the report be accepted and, keep in mind that if you accept the report, you also make more or less a commitment of yourselves (your states) to respond to any questionnaires or request for information that we might send out, so it is a two part report, the update and the commitment. I move that the report be adopted, Mr. Chairman.

Larry Gale: Is there a second?

Bill Hanzlick: Second.

Larry Gale: I believe that Bill Hanzlick did this once before when he was Chairman of the Legislative Committee, assembled some information on state legislation and, as I recall, it was of considerable interest. Are there any comments or questions? Those in favor say aye.

Response: Aye.

Larry Gale: Oppose? None. Report is adopted. Next we have the Resolutions Committee, Mr. Ed Hansen.

Ed Hansen: Thank you, Mr. President. I would like to thank the members of the committee; Carl Kays, John Keener, and Henry Vondett for working with me and going these different resolutions that have either been forwarded from the various states or suggested by the President.

No. 1 Resolution deals with the National Agricultural Soil Protection Act and I will read these and if there are any questions, I'll go back over them.

RESOLUTION NO. 1

WHEREAS, soil erosion has been identified as a major agricultural crop production problem which adversely affects fish and wildlife resources; and

WHEREAS, The "National Agricultural Soil Protection Act" (NASP) (H.R. 5200) has been introduced in Congress in an effort to reform federal soil conservation policies; and

WHEREAS, NASPA addresses the need to improve economic incentives for farmers presently cultivating highly erodible land

(classes IV 3 - VIII) to adopt long-term soil conservaiton efforts; and

WHEREAS, NASPA encourages a regional solution presently unattainable in existing soil conservation programs; and

WHEREAS, NASPA places commodity programs and natural resource programs under the same USDA Under Secretary to provide better coordination between production control and soil conservation activities;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, strongly supports H.R. 5200; and

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to member states for submission to their Congressional committee members by the Association President.

Are there any comments on Resolution No. 1?

Larry Gale: As we go through these, if there is an objection to any of them, we can lay those aside. Otherwise, with your concurrence, we'll go through all of them now and then adopt them as a package if that is acceptable.

Ed Hansen: If there are no comments, we'll go on to Resolution No. 2, Funding of U.S.D.A. Water Bank Program.

RESOLUTION NO. 2
FUNDING OF U.S.D.A. WATER BANK PROGRAM

WHEREAS, the U.S.D.A. Water Bank Program (WBP) provides annual payments to landowners to preserve and improve wetlands and adjacent land for ten-year periods; and

WHEREAS, WBP conserves surface waters; preserves and improves habitat for migratory waterfowl and other wildlife; reduces runoff, wind and water erosion, stream sedimentation, and new acres of land coming into production; contributes to flood control, improves sub-surface moisture and water quality; promotes comprehensive and total water management planning; and

WHEREAS, the House of Representatives has appropriated $8.8 million for 1985; and

WHEREAS, $20 million annually would be necessary to allow renewal of existing contracts and $30 million to provide a viable WBP at a level of slightly less than 2 million acres of U.S. farmland; and

WHEREAS, the WBP is recognized for its cost efficiency and benefits to waterfowl, songbirds, fur bearers and other farmland wildlife;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, respectfully urges Congress to appropriate $30 million annually in order to provide an effective and viable Water Bank Program.

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to member states for submission to their Congressional Delegations and be transmitted to appropriate Congressional committee members by the Association President.

Ed Hansen: Any comments on Resolution No. 2?

RESOLUTION NO. 3

DEPARTMENT OF THE INTERIOR APPROPRIATIONS ACT: STEEL SHOT

WHEREAS, each year millions of waterfowl die from lead poisoning after they ingest lead pellets deposited by waterfowl hunters; and

WHEREAS, a number of other migratory birds, including endangered bald eagles, are also documented dying from lead poisoning; and

WHEREAS, since 1978, language has been incorporated into the Department of the Interior's (DOI) Annual Appropriations Act that prohibits the U. S. Fish and Wildlife Service (USFWS) from enforcing steel shot requirements or zones without state concurrence; and

WHEREAS, this language has effectively hampered the USFWS's ability to take effective action on the pervasive problem of lead poisoning and has caused the Department of the Interior to retreat from its once strong leadership on steel shot; and

WHEREAS, this language is also in conflict with several major statutes that the DOI is charged with enforcing, including the Migratory Bird Conservation Act and the Endangered Species Act; and

WHEREAS, since 1979, the International Association of Fish and Wildlife Agencies has been on record opposing this type of restrictive appropriations language;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, opposes the Department of the Interior Appropriations Act language that

prohibits the USFWS from enforcing steel shot requirements or zones without State Concurrence; and

BE IT FURTHER RESOLVED that the Association of Midwest Fish and Wildlife Agencies urges the Congress to delete language which restricts the U. S. Fish and Wildlife Service from enforcing steel shot requirements or zones without state concurrence.

Ed Hansen: Any comments? I do know that the language was stricken in a committee meeting, I think the vote was 13-12, that was passed on by the National Wildlife Federation, but it still has to go on the floor, so the committee feels this is an appropriate resolution to forward.

RESOLUTION NO. 4

LEAD POISONING/NON-TOXIC SHOT

WHEREAS, lead is a toxin and an environmental contaminant; and

WHEREAS, most lead in waterfowl habitats is deposited as a result of the hunting of waterfowl; and

WHEREAS, the potential of lead poisoning exists wherever lead shot is used for waterfowl hunting; and

WHEREAS, the ingestion of spent lead shot results in the lead poisoning of waterfowl and secondary poisoning of other species, most notably eagles; and

WHEREAS, each state shares in the responsibility for the abatement of lead poisoning because a migratory bird which dies of this disease in one state is a loss shared by other states; and

WHEREAS, water level manipulation, cultivation and similar techniques that may reduce the potential of lead poisoning in waterfowl are short term solutions; and

WHEREAS, presently the only effective non-toxic substitute for lead shot for the hunting of waterfowl is steel shot;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, urges the Department of the Interior, U. S. Fish and Wildlife Service to give strong consideration to the complete use of non-toxic shot for waterfowl hunting; and

BE IT FURTHER RESOLVED that the Association of Midwest Fish and Wildlife Agencies urges its member states to work closely with the Department of the Interior, U. S. Fish and Wildlife

Service, to establish plans to implement regulations requiring the use of non-toxic shot for waterfowl hunting; and

BE IT FURTHER RESOLVED that two copies of this resolution be transmitted to the Secretary of the Interior and the Director of the U. S. Fish and Wildlife Service.

Ed Hansen: Any comments?

Bill Bailey: You do not have a target date for the completion of the resolution?

Ed Hansen: No, we did not.

Bill Bailey: Is there some reason why the committee did not accept basically the proposal or the resolution of The Wildlife Society that set a target date of 1989?

Ed Hansen: No, we didn't discuss putting a date in there, but if you would like to suggest that.

Bill Bailey: I would like to set that one aside because I think there is an advantage to setting a target date.

Ed Hansen: Okay, we'll come back to that one.

RESOLUTION NO. 5

ENDANGERED SPECIES ACT FUNDING

WHEREAS, the Endangered Species Act of 1973, as amended in 1982, is a vital and successful part of the nation's conservation program; and

WHEREAS, authorization for funding the Act will terminate at the end of fiscal year 1985; and

WHEREAS, continuation of the states' essential part in conservation of endangered species is dependent on adequate, stable funding of the grants-in-aid program authorized by the Act;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, urges the Congress to authorize continuous funding for the Endangered Species Act in an annual amount not less than the $6 million as currently authorized; and

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to the International Association of Fish and Wildlife Agencies for use at the appropriate time.

Ed Hansen: My understanding for the last language was that timing may be very essential and that the International is keeping very close tract of this so this could be used as an instrument for forwarding at the proper time.

Jerry Blackard: Is this for Section 6 of the act only?

Ed Hansen: Allen (Brohn), who wrote this for us, is the Chairman for the International Committee, I'm pretty sure he said that. Any committee members when he sat in there, do you recall? John, do you remember? (Didn't hear the question) The question was if this included Section 6 funding. This is Section 6. What was your question again?.

Jerry Blackard: My understanding was that there was only $4 million set up in the 1985 budget for this but what you're asking for is $6 million, the resolution is urging for $6 million be set up just for Section 6 of the Endangered Species Act, is that right?

Ed Hansen: Well, Allen wrote this out for us and he discussed it briefly but I assume that that is just for Section 6 and his committee of the International recommended the $6 million level.

Larry Gale: Jim Wilson may know about that. Jim, do you know.

Jim Wilson: I guess the question whether or not this $6 million would be for Section 6 only or whether it included some of the other sections as well.

Ed Hansen: The way that Allen wrote it was "Whereas, continuation of the states' essential part in conservation of endangered species is dependent on adequate funding", I assume that is what he is talking about.

Harvey Nelson: It is my understanding that this is directed at 6 specifically and the problem, of course, has been reduced already and it tends to expire in the end of 1985 without reauthorization so that the action plan would be, I would think to get new authorization, new license and encompass the problems you're faced with.

Ed Hansen: I believe that is why Allen put in there "authorized continuous funding". Any other questions? Do you think that needs to be clarified in here or do you think that is adequate?

Jerry Blackard: Harvey has a good point there. The termination of the _____(inaudible)_____. It should be clarified.

Ed Hansen: Okay, we will set that aside for right now.

RESOLUTION NO 6

H. R. 1797 BANNING LEG-HOLD TRAPS

WHEREAS, population control is of vital importance to the wise and scientific management of fur bearing species and other wildlife in order to maintain the health and stability of their populations; and

WHEREAS, the leg-hold trap has been identified as the most effective device for capturing the broad range of fur bearing species and is responsible for 70% of the annual fur bearer harvest in the United States; and

WHEREAS, a total ban on trapping would cripple the American fur trade which contributes $1.2 billion annually to the U. S. and world economies and provides work for one-quarter million Americans, and nearly one-half of the fur industry's business is dependent on the sale of wild caught furs; and

WHEREAS, legislation now before the U. S. House of Representatives (H.R. 1797) would effectively end interstate and foreign commerce in leg-hold traps, and fur taken in these devices, and would, therefore, affect most trapping in the United States;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, expresses strong opposition to H.R. 1797.

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to appropriate Congressional committee members.

Ed Hansel: Any comments on that?

Al Farris: Mr. Chairman, can I ask a question? Can non-voting members speak here or express an opinion?

Larry Gale: Yes, at this discussion.

Al Farris: Ed, would you please read the beginning of that again. I think it is very poorly worded.

Ed Hansen: Okay, we had a few problems but we thought we had changed it so it might be acceptable but the first whereas. Whereas, population control is of vital importance to the wise and scientific management of fur bearing species and other wildlife in order to maintain the health and stability of their populations.

Al Farris: I don't think that is really the basis for fur trapping. It's because we allow it on a controlled condition and still maintain adequate populations and I think that old concept that population control is not really very viable and I'm not sure you would want it in your resolution. That's up to the voting members but I'm not sure that's the way it should be stated.

Ed Hansen: Well, we probably should have addressed also the fact that it is wise management and that we are utilizing a renewable resource and that population control also plays a part in our management and I see your point.

Bill Bailey: Could that one whereas be amended to reflect the utilization of the renewable fur bearer resource for recreation even on the population or should it be another whereas? I don't object to the concept of population control, at least animal damage control trapping but I do agree with Al in terms of the use of renewable fur bearer resource and that should be reflected.

Larry Wilson: Let's set that one aside.

Ed Hansen: Mr. President, I think that after we get through these others, we could make some changes on it and be voted on a little bit later. We have another one which will be at a later time.
We have three resolutions, Resolution No 1, dealing with House HR 5200 National Agricultural Soil Protection Act; Resolution No. 2, the Water Bank Program; and Resolution No. 3, the Steel Shot Appropriations Act. I moved that these be accepted, Mr. President.

Larry Gale: Is there a second?

Bill Bailey: Second.

Larry Gale: Seconded by Mr. Bailey. Discussion? Those in favor say aye.

Response: Aye

Larry Gale: Oppose? None. Carried. We'll go back to the ones that were laid over.

Ed Hansen: Okay, No. 4 was the Lead Poisoning/Non-Toxic Shot. Who had a question about that, Bill?

Bill Bailey: I would like to see the resolution amended to include a specific target date if we can agree upon a target date. There are several around. The Central Flyway in 1980 established the target date of 1987 for total conversion in the Central Flyway. I think their last resolution avoided the question of a target date and was worded very similar to what we

have here. I believe The Wildlife Society had language that would indicate conversion if possible but no later than 1989 as a minimum. I think a target date no later than 1989 should be reflected in the resolution. Otherwise, we are going to be dealing with this problem in the 1990's. Somewhere we have got to get a target date and record it. In Nebraska, we have a target date of 1985 so I feel very strong about this issue.

Larry Gale: Are you moving that we have a 1989 target date?

Bill Bailey: Yes, I would move that a target date no later than 1989 be amended into the resolution.

Larry Gale: Is there a second to that motion?

Larry Wilson: Second.

Larry Gale: Any discussion about the amendment?

Dave Kenney: Mr. Chairman, will you repeat that. We couldn't hear too well.

Ed Hansen: Okay, the amendment was to put a target date which would read no later that 1989. In other words, " Be it further resolved that the Association urges its member states to work closely with the Department of the Interior, U. S. Fish and Wildlife Service, to establish plans to implement regulations requiring the use of non-toxic shot for waterfowl hunting no later than 1989."

Bill Bailey: Hopefully, that would leave some latitude then and if we can get it done sooner, fine but somewhere we have to bring this thing to a close.

Larry Gale: Does everyone understand the amendment? Okay, we are voting on the amendment.

Dave Kenney: It says no later than 1989. It could come earlier?

Bill Bailey: That would be my intent if they could get it in gear.

Dave Kenney: Ed, does the resolution say waterfowl hunting or all waterfowl hunting?

Ed Hansen: Waterfowl hunting.

Dave Kenney: Does that mean all waterfowl hunting?

Bill Bailey: It does to me.

Larry Gale: Any other discussion on the amendment? Are you ready for the question? Those in favor of the amendment, say aye.

Response: Aye.

Larry Gale: Oppose? None. Amendment is carried. Now we are back to the main motion approval of the resolution as amended.

Ed Hansen: I move that we accept Resolution No. 4 as amended on Lead Poisoning/Non-Toxic Shot.

Bill Bailey: Second.

Larry Gale: Seconded by Bailey, any discussion?

Larry Wilson: This is a trivia question, I guess. There was a reference in that resolution about disease. Is that proper to use that term. Lead poisoning causes disease? I don't know, I'm just asking. I don't associate poisoning with an organism with disease. You might want to clean that up or it might not mean anything. I was kind of curious.

Ed Hansen: I believe a disease expert considers anything like that a disease. Now, that is just my interpretation too.

Larry Gale: I think plumbism is the official disease designation. That is according to the Department of the Interior.

Walt Graul: I go back to that question earlier about whether this means all waterfowl hunting. I'm not clear what that does. It is my understanding that some states are looking at exempting in certain situations so we might want to clarify all waterfowl hunting in all these areas.

Ed Hansen: Well, it mentions throughout the resolution. Let me read, "Now, therefore, be it resolved that the Association urges the Department of the Interior, U. S. Fish and Wildlife Service to give strong consideration to the complete use of non-toxic shot for waterfowl hunting; and be it further resolved that the Association urges its member states to work closely with the Department of the Interior, U. S. Fish and Wildlife Service, to establish plans to implement regulations requiring the use of non-toxic shot for waterfowl hunting no later than 1989."

Larry Gale: I would interpret that as meaning for all species and in all locations for waterfowl hunting. Any further discussion? Those in favor of the resolution as amended, say aye.

Response: Aye.

Larry Gale: Oppose? None. Carried.

Ed Hansen: Did we pass No. 5 on Endangered Species?

Larry Gale: No, they asked a question about it.

Ed Hansen: We did have a question on Resolution No. 5, Endangered Species Act Funding, wherein we requested authorization for continuous funding for the Endangered Species Act in the amount not less than $6 million, whether or not we should specify Section 6.

Larry Gale: Jim Wilson has a comment.

Jim Wilson: I talked to Al Brohn about that and he said that the $6 million figure was the figure that the International Committee felt to be the maximum they could hope for for Section 6. They were trying to do two things but that he acknowledged that this might need some clarification but that his intent in that kind of quick draft of the resolution was to support the total reauthorization which indicates several million more but to also clarify that for Section 6 so whatever wording would do that.

Ed Hansen: We could add "Whereas, continuation of the states' essential part in conservation of endangered species is dependent on adequate, stable funding of the grants-in-aid program authorized by the Act under Section 6." Any other discussion?

???: Is that in "now, be it resolved" or in a "whereas".

Ed Hansen: That's in a "whereas".

???: It would be a lot better to be specific in a "resolved".

Ed Hansen: Now, we could add, "Now, therefore, be it resolved that the Association urges the Congress to authorize continuous funding for Section 6 of the Endangered Species Act in an annual amount not less than the $6 million currently authorized". Mr. President, I move that this resolution as amended, be accepted.

Larry Gale: We probably ought to act on the amendment first technically. You move the amendment?

Ed Hansen: Yes.

Larry Gale: Is there a second for the amendment?

Jim Huntoon: Second.

Larry Gale: Seconded. Any discussion? Those in favor of the amendment, say aye.

Response: Aye.

Larry Gale: Oppose? None. Carried. Okay, we're back to the original now. Those in favor of the resolution as amended. Or, let me have a motion on that.

Ed Hansen: I so move as amended.

Carl Kays: Second.

Larry Gale: Any discussion? Those in favor, say aye.

Response: Aye.

Larry Gale: Oppose? None. Carried.

Ed Hansen: Mr. President, on No. 6, maybe members of my committee can take a few moments out and bring this up later, if that is satisfactory.

Steve Cole: Mr. Chairman, can I make a quick comment on the trapping resolution. I can understand Al's comments coming from Iowa but coming from Arkansas, population control in the use of leg-hold traps is an extremely important issue when it pertains to beaver in Arkansas with a year around, wide open shoot'em, blow'em, do anything you can to get rid of them, and you have a lot of southern states in that situation right now. You may want to consider a second "whereas" and leave the population control in there.

Ed Hansen: Yes, we'll leave it in there, but that is a good point. I do have one more resolution and it's Resolution No. 7.

RESOLUTION NO. 7

WHEREAS, Director Larry R. Gale and his associates of the Missouri Department of Conservation have provided members of the Association an outstanding program and display of hospitality; and

WHEREAS, the meeting location has provided excellent facilities and an opportunity to visit an area of historic and natural resource significance;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, commends the Missouri Department of Conservation for organizing and conducting a most successful annual meeting.

Mr. President, I move acceptance of this resolution by acclamation.

Larry Gale: Our next report is from the Awards Committee, Chairman, Mr. William Bailey.

William Bailey: I probably have one of the most pleasurable assignments that the President can hand out as a committee and I particularly enjoy this one because if I understand the functions

of the Awards Committee, you don't get a chance to argue with our decision. We do have several awards this morning and I also have a second part of our report that I will give just as soon as I complete the awards. It is an assignment that President Gale gave us to try to define for the records, some guidelines on the Midwest awards, and frankly, as we look back through the minutes and records of the Association, we were lacking any substantial guidelines to guide the committee on an annual basis, so that will be the second part just as soon as we finish with the awards.

I think this first award, an Award of Merit, so far as I know is one of the first that we have had in the Midwest. We have stepped outside the professional community of wildlife managers and fisheries managers and are making an award to an association of interested citizens to their efforts in conservation work. Would Dr. Don Ditcock please come forward. This award will be made to the Wisconsin Association of Field Trial Clubs and I think some of you had the opportunity to hear Dr. Ditcock present the program at the International in Milwaukee last year. Let me tell you just a little bit about this and it will take me just a moment.

In 1976, a 30-member citizens' committee, appointed by the Secretary of the Wisconsin Department of Natural Resources issued a final report aimed at improving hunter ethics. Of 12 major recommendations was one which called for: "Encourage the training and use of hunting dogs where legally allowed." "The use of trained hunting dogs for hunting adds a dimension to the sport by involving the hunter in the actual training as well as the ultimate benefits of a good hunting dog. A new sense of values undoubtedly emerges which enhances the quality of hunting. There are other benefits which accrue such as reducing unretrieved losses, and finding more game. The sport of field trialing is well established in the state. While it does not appeal directly to all hunters, the field trial clubs should be encouraged to establish programs to assist hunters in dog training."

The Wisconsin Association of Field Trial Clubs (WAFTC) rose to this challenge. A program was developed, instructors trained and instructional materials prepared. The first official training sessions were conducted in the spring of 1978. The first effort included four retriever and three pointing dog sessions with almost 300 participants. In 1981, seven pointing dog, seven retriever and one flushing dog courses were held.

Through 1984, over 3,000 individual students and 4,000-5,000 family members and friends have been served. The WAFTC has now a roster of 150 experienced trainers to continue the program in the future.

From the outset, the WAFTC was determined to provide an educational experience for hunting dog owners which would transcend the mere training of a single dog. Their purpose was to train the dog owner, not the dog. At each session, the opportunity of having groups of hunters together provides a forum to stress ethical conduct in the field while hunting.

The Wisconsin Department of Natural Resources has strongly endorsed this program from its inception and has cooperated to the extent possible by providing adequate training grounds and providing game farm pheasants when available.

The program has received very high praise from participants (and I'll assure you of that because I read many of the press releases on this and the comments that were made by the participants) and the interest is growing rapidly. A number of other states have expressed an interest in initiating similar programs, including my state of Nebraska. The media have heaped high praise on the effort.

The first two years' effort culminated in the publication (I hope you have a copy here, Dr. Ditcock) "Training You to Train Your Dog". This too has received high praise both in-state and nationally, as a unique booklet covering a broad range of topics to prepare a hunting dog owner (or potential owner) on how to approach his responsibility. It also contains the ethical message on which the program is based. The program exemplifies how private individuals and organizations can, through volunteer effort, assist and promote the conservation principles we all stand for. As an aside, he runs brittanies so how could he fail.

Larry Gale: Doctor, it is a privilege and a pleasure to make this presentation in recognition of your outstanding achievements in conservation.

Dr. Don Ditcock: Thank you Mr. Bailey, Mr. President, members of the Association, on behalf of the Wisconsin Association of Field Trial Clubs, we are pleased to accept this award. We believe that we have made one small step in the direction of hunting ethics in solving some of the problems that are involved and is much more than training a dog. I believe it is a small step. There are literally dozens of other educational efforts where special interest groups such as ours can assist your Associations, your Departments of Natural Resources, your Bureaus of Wildlife to do similar types of things so that we could continue to become involved in the education of hunters in your states. Thank you very much.

Bill Bailey: Now we have three additional awards to go to individuals. First, and all of these people are very familiar to you. John Keener would you please come forward?

John M. Keener has worked long and hard for the conservation cause for over 34 years with the Wisconsin Department of Natural

Resources (WDNR). Being a tireless and efficient mover behind many issues of state and national concern, John's co-workers have recognized his service and dependability.

John came to the Department of Natural Resources in 1949 as a field deer research biologist. A native of Painesville, Ohio, he brought with him a degree in forestry from the Michigan College of Mining and Technology. In addition to this, he has held the following positions within the Department: Administrative Assistant in the Game Management Division, Assistant to the Administrator of the Fish, Game and Enforcement Division, Assistant Director of the Game Management Division, Director of the Bureau of Game Management, Director of the Inland Lake Renewal office, and presently as Director of the Bureau of Wildlife Management. In these positions, John's most recognized achievements are in the areas of deer, waterfowl, and grouse management as well as land acquisition and untiring assistance to external groups and organizations.

The Wisconsin deer management program has progressed from outright civil rebellion over the concept of harvesting antlerless deer to a balanced program that is now recognized nationally as one of the best. John's development and implementation of the variable quota system marked the real turnaround, and his leadership in the aspen management and forest habitat programs provided models for other states to follow.

With respect to waterfowl management, John was instrumental in seeing that a portion of nonresident license fees were used to support waterfowl management in Canada. More recently, this support has grown to about $100,000 annually from a portion of the revenues generated by Wisconsin's waterfowl stamp. John was in the forefront of the implementation of the point system in Wisconsin and his invaluable assistance and support of steel shot within Wisconsin, the Flyway, and with ammunition manufacturers

is of national importance. These achievements played no small role in his receiving the Silver Eagle Award from the Fish and Wildlife Service. His commitment to serving on the Misissippi Flyway Council (Chairman 1972-73, 1979-80) sets standards for others to follow.

Recognizing that land acquisition was crucial to most management efforts, John threw his efforts into securing the necessary legislation that has made it possible to control over a half-million acres of Wisconsin wildlife habitat.

John's service extends beyond the Department of Natural Resources in Wisconsin as well as beyond the state boundaries. His sponsorship and assistance to Ducks Unlimited has been crucial to their successes in both Wisconsin and Canada. He was also instrumental in establishing the first Ruffed Grouse Society Chapter in Wisconsin and has subsequently helped the Society efforts nationally.

John has played an instrumental role on the International's Federal-State Cooperation Committee. He was appointed to this task because of his experience as a state wildlife administrator. He has proven to be a valuable asset in improving working relationships between the states and the Fish and Wildlife Service.

His service to the Midwest Association also deserves quite a bit of mention because I think to most of you John was a senior member around here in terms of a face that regularly attends these meetings. He has chaired numerous committees within the Association including serving as Awards Chairman several times and served as President during 1978.

Larry Gale: Congratulations, John. This is a special privilege and pleasure for me because several years ago I had an opportunity to set in on a panel in Wisconsin that selected John for one of these several jobs that you heard mentioned.

Bill Bailey: Now we are get pretty close to home, Dean Murphy. This one is certainly familiar to all of you too.

Dean A. Murphy is a native of Nebraska (I don't know how he got to Missouri). After serving three years in the U. S. Air Force during World War II (and it is reported that he learned to shoot during this period), Dean returned to his home state to later graduate with a B.A. in Biology from the University of Nebraska (1949). He received an M.A. in Field Zoology in 1951 from the University of Missouri.

Murph's conservation career has spanned thirty-three years. It began in September, 1951, with his employment by the the Missouri Department of Conservation. His assignment was white-tailed deer research, a subject that would consume his efforts for the next eighteen years. During that period, Dean provided direction to Missouri's deer restoration, management and research efforts. His pioneer research established him as a nationally recognized deer management authority and led to his authorship of over 30 technical and semi-technical publications.

Dean was promoted to Superintendent of Game Management in 1969 and then to Assistant Chief of the Department's Wildlife Division in 1971. He was and instrumental figure in promoting passage of Missouri's well known "Design for Conservation". In 1977, Dean was named Chief of the Wildlife Division and has since guided implementation of "Design" in the Division. The one-time dreams of expanded wildlife land acquisition, research, management and public service are now a reality.

Dean Murphy has been active on all fronts -- past President of the North Central Section of The Wildlife Society, a charter member and former officer of the Missouri Chapter of The Wildlife Society, a member of the Mississiippi Flyway Council and

International Association Fur Resources Committee, a past Chairman of the Boone and Crockett Club National Scoring Committee, Steering Committee Chairman for the 1975 Southeastern Conference, and this 1984 Midwest Association meeting, and many others. Again, Dean has participated with this Association and has been a very active participant for many years. In 1973, Dean received prestigious "Wildlife Conservationist of the Year" recognition by the Conservation Federation of Missouri. He is also an active Rotarian and American Legion member.

Dean Murphy has served the Missouri Department of Conservation well and, through his efforts, served each of us in the Midwest Association.

Larry Gale: Congratulations, Dean. Some of you have heard that Dean plans to retire this fall and so this will be the last official attendance at least at the Midwest Association meetings. Maybe Dean would like to say a word or two to the group.

Dean Murphy: All I can say is that it's been fun. It has been a real pleasure to work with a great bunch of fellows, a great bunch of professionals, and to see the progress that has been made. I hope that the future Association can continue to work together and promote conservation in the midwest that we are so interested in. Thanks again very much.

Bill Bailey: One more recognition, Henry "Hank" Vondette, and I have to appologize for this one because this was a late nomination but the committee fully agreed with the nomination and Hank, we are going to have to get your plaque engraved and sent to you. Trust in me and Fred Warders and we will get it to you.

Henry "Hank" Vondette is a native of Michigan. He graduated from Michigan State University with a degree in fisheries management. During the Korean War he served as an artillery officer. Hank's interest and work in fisheries management has been long standing, starting in high school when he worked at the Hunt Creek Research Station. He has served in various positions of increasing responsibility in Michigan for 35 years in fisheries research and management, culminating in his present position as Assistant Division Chief for Field Operations. In this capacity, he has served with distinction and has left his mark on the highly successful salmon program of Michigan's Great Lakes Waters. I think he has thumb prints, foot prints, and he left many, many marks on that program. Hank and his wife Shirley (and I don't see her here - every time I see you, I see Shirley) have served and been very active participants in the affairs of the Association for many years. And, Hank, it is a pleasure that I had the opportunity to participate in this award, and I'll get that award to you.

Larry Gale: Congratulations, I'm sorry we don't have anything to give you.

Henry Vondette: That's quite all right. I rely on you and Fred Warders. I would just like to say that association with this group has been very enhancing. I would acknowledge for my wife that it has enriched her life tremendously. She has developed a number of friends with the wives of all of you people. It has been a very active group and very excellent work and I have really enjoyed it. Thank you.

Bill Bailey: We have two Service Award Certificates to recognize two individuals, both of whom served as past Presidents. Carl Kays would you come forward, and Dave Kenney would you come forward? This basically is a Service Award to recognize the efforts of these two individuals serving as President of the Association, Carl Kays immediate past President and Dave, the President prior to Carl.

Larry Gale: Thank you Carl and thank you Dave.

Carl Kays and Dave Kenney: Thank you.

Bill Bailey: Now, Mr. President, if I can carry through with the final part of your assignment. The charge was to basically find the awards system that would be used by the Association. My committee here was rather limited, a committee of two, me and Fred Warders, but I did draft and he volunteered George Sekata. We did have some participation in arriving at this, the suggested guidelines. We are suggesting three award recognitions: 1) an Award of Merit, 2) a Presidential Plaque, and 3) a Special Service Award to members.

1. Award of Merit

Purpose: To recognize a meaningful contribution in the Midwest Region to sound fish and wildlife management; public education and awareness in natural resource problems and issues; or fostering a responsible and ethical outdoor conduct in the use of renewable fish and wildlife resources. (The intent of the Award of Merit is to recognize truly outstanding contributions and should be limited to one annually, or at the most two should the Committee be unable to distinguish fairly between the top two nominations.)

Eligible Recipients:

(1) Agency employees who have provided outstanding service to a member agency and through such service to the Association;

(2) A member agency;

(3) A citizen's conservation organization for either a one-time or a long-term meaningful program in wildlife conservation;

(4) An industry or business; or

(5) An individual citizen.

Bill Bailey: In other words, you could just about cover the waterfront with eligible recipients for a meaningful program.

2. Presidential Plaque

Purpose: Recognition of services performed as President of the Association of Midwest Fish and Wildlife Agencies.

Eligible Recipient:

Immediate past President

Bill Bailey: We feel, Mr. President, that after serving a year in that office that the President deserves some type of recognition and Carl and Dave, I wish we had had this before we gave you a Certificate.

3. Special Service Award

Purpose: To recognize substantial and meaningful contributions to the Association as an active participant in Association affairs.

Eligible Recipients:

Representatives of member agencies.

Bill Bailey: Mr. President, I don't know how many saw the Award of Merit plaques but would you hold yours up, John, so they can see it. The committee is very satisfied with the type of award for a plaque type of award. We are running short on supply of those awards and we will have to secure some more if this is satisfactory with everyone else. There is no problem with the Certificate of Service Awards. I had 100 run off before I came down and Mr. Warders is graciously volunteering to be custodian for all these things. I would suggest in the future though that we make it a point on the Certificate of Service Awards that we frame the awards prior to presentation and I think we can do that easily and cheaply but I think it would be more meaningful. Mr. Chairman, I move the adoption of the report of the Awards Committee and that the incumbent Treasurer be authorized to order 20 plaques for future awards; and, further, that the Treasurer retain custody of the plaques until used.

Larry Gale: Is there a second to this recommendation?

Bill Bailey: You have no voice in this Mr. Warders.

Bill Hanzlick: Second.

Larry Gale: It has been moved and seconded. Any discussion? Those in favor, say aye.

Response: Aye.

Fred Warders: I think that 25 would be a better number.

Bill Bailey: Twenty-five suits me fine. The number was 20 but if the treasurer will support it.

Larry Gale: Amend to 25. Anybody oppose? None. Motion carried.

Larry Gale: As you all know, Keith Harmon had an unfortunate accident a few weeks ago and I had asked him to bring us up-to-date on the status of the Federal Farm Bill and the cooperative project that we entered into last year. After his accident, Keith told me that he had already started to write such a report and that he would bring to Bill Bailey to bring to us so I will call on Bill Bailey to give us that report.

Bill Bailey: I thought that all I was doing was being a delivery boy and didn't find out that I was to do this until I got down here. Keith and I were at the Gun Club together Sunday but we did not review his report. I just took it into custody to bring down here. If I could take just a minute, every now and then, I must be a little warped in the way I think, but things that could end up to be almost a disaster sometimes turn out to be rather funny to me. That may be my warped way of thinking but Keith's accident is one that could be cartooned very easily. He had a large limb that was hanging from the tree so he was going to trim and because of the size, he wanted to take it down in three sections. He had an extension ladder that he placed upon the limb. Now he didn't cut off back here so that his extension ladder would fall, but when he removed the end of that, then the balance of it became just like a springboard. It came up and if you can visualize Keith 18 feet up in the air on an extension ladder with a live chain saw in his hand and nothing supporting anything. He came down, of course, flat on his back on that extension ladder. He cracked a vertebra, compressed the disc in the lower portion of his back, fractured his wrist, and he has been hurting a little bit. He has yet to reconstruct how he got rid of that chain saw but he did get rid of that chain saw some way, some how. I have to see some humor in some things like that since it did turn out okay, but I can just visualize someone cartooning that entire incident.

The Sod Buster Legislation, I'll just have to read this. It is handwritten and hope I can read his writing. The Senate passed Senate Bill 663 that would deny various crop subsidies to farmers who brought highly erodible land into production in the arid West. The House passed HR 3457 which contains the Side Buster provision plus a conservation reserve which provides long-term contracts for taking erosible land out of production nationwide

and installing a cover crop and a voluntary set-aside that would protect the farmers cropland base when cropland is devoted for protected cover crop. The bill is stalled in conference in an attempt to gain concessions on other bills. I have heard two slightly differing reports on this. One is that it is hung up trying to get concessions on some industry and the other is that the Senate Committee felt that the long-term retirement bill was just too expensive, so I don't which of those is the main cause or problem at this time.

Long-Term Retirement - farmers have retired 264,000 acres of erosible cropland under five to ten year contracts in U.S.D.A.'s Acreage Conservation Reserve Program. The program is being used to test farmers' willingness to make long-term commitments to retirement of erodible cropland.

1985 Agricultural Legislation - He has broken this down between the Executive Branch and the Legislative Branch. Under the Executive Branch, meetings have been held with Secretary Block on February 15 and April 19-20 on elements of the 1985 Farm Bill. I am assuming this is some of the report on the use of the $5,000 that was made available. A 10-member task force of individuals from Washington based organizations has been formed by Secretary Block and key U.S.D.A. representatives. The Wildlife Management Institute and the American Forestry Association along with national farm leaders met at SCS Administrator Peter Myers' farm on farm legislative needs. I think this meeting was referred to by the SCS representative in his presentation. The Legislative Branch - the Wildlife Management Institute is chairing Senator Jefferson's Conservation Wildlife Committee. This committee has now drafted a consolidated food, fiber and conservation policy. Six work groups are developing language for the 1985 Farm Bill that will be consistent with the Commodity Conservation Policy. Work group meetings will held in July and August to work with legislative drafting services. No specific farm legislation is expected to be introducted until after January 1985. Some election year maneuvering could change that time schedule.

That is the extent of the report that Keith gave me.

Larry Gale: I want to thank you, Bill. One thing that I have wondered about is whether they want another contribution to continue this program. Nobody has contacted me in that regard. Has anyone heard anything.

Bill Bailey: Keith didn't say and I didn't ask.

Al Farris: Yesterday afternoon I called the Wildlife Management Institute to talk to Larry Jahn. Unfortunately, Larry was out but I talked to Lonnie Williamson and we didn't discuss that subject but I did want an update and he told me that they have been actively meeting. In fact, day before yesterday they met with some of the staff people from the Agricultural Department

and some Legislative staff people and Carland Perry (?) from Senator Jefferson's office, working on drafting the 1985 Farm Bill Legislation, so they are continuing to function in the cooperative program, but nobody said anything about any more money.

Larry Gale: I was hoping somebody would know because this might present a real problem if they come up with a bill for $5,000 and we haven't taken any action.

Bill Bailey: From the past year's action, Mr. President, that was a one time effort.

Larry Gale: Yes, it would take a special action to do it.

Bill Hanzlick: Would it not be advisable to ask for an accounting of the money. I rather curious myself.

Larry Gale: You mean to ask them how much they spent and what for?

Bill Hanzlick: An accounting might be in order.

Larry Gale: It might be. That would be a good job for the new President to take over.

Bill Hanzlick: Now wait a minute.

Larry Gale: I think it is a good suggestion, Bill.

Jim Huntoon: Is there any feeling of maybe how effective they've been up to this point?

Al Farris: I think the effectiveness right now you can't measure. You aren't going to be able to measure the effectiveness until the 1985 Farm Bill comes out. I think by and large there has been a larger voice, a larger number of contacts in the fish and wildlife community with legislators and their staffs on the agricultural committees than there have been before. I went last, when was it Larry, last September or October to testify before Senator Jefferson's Subcommittee on behalf of the International, the Midwest Association and the State of Iowa about several pieces of legislation, myself and the Director of the State Department of Soils testified and they all recognized Larry Jahn. They all know who he is, They all look to him and basically what he is giving them in the way of information is what we provide to him, so back to the money thing if I may. In that agreement we signed with the Wildlife Management Institute, it says in there that they will provide us something to the effect that "upon request they will provide us with an accounting of where the money has gone". I think all that it takes is a letter from the President asking for that and we will get it.

Larry Gale: Okay, any other discussion? If not, we will take a 10 minute coffee break. Be back at 10:15.

Larry Gale: It has been brought to my attention that we have a couple of new people here, that is new to the Association. Would any of the Directors who have such people, introduce them at this time?

Jim Huntoon: I think most of you have met him by this time but for those of you who have not, I would like you to meet the man who is going to replace John Keener who just got his award, Mr. Steve Miller. Steve will officially take over this fall after John leaves our ranks. If any of you haven't had a chance to talk to him, I hope you will say hello to Steve.

Larry Gale: Is there anybody else who hasn't been introduced? Bill.

Bill Hanzlick: I brought the Assistant Director Kent Jackson for obvious reasons. Normally, I bring Fred. He's kind of Treasurer for Life or whatever but since Kansas will host this gathering next year, I needed somebody who is a good administrative source to put this thing together next year. I wanted to be sure I had man here to see how it's done and I think he is taking some pretty good notes. That's Kent Jackson, our Assistant Director.

Larry Gale: Thank you, Bill. We'll expect Kent to do as well on the weather as Dean has done this year.

Bill Hanzlick: Don't count on it.

Larry Gale: At this time, I will call Ed Hansen up here to clean up these resolutions.

Ed Hansen: Thank you, Mr. President. First, this Resolution No. 6, HR 1797, banning the leg-hold trap. It is probably appropriate that I read it again and with an addition that addresses utilization of the annual surplus.

WHEREAS, population control is of vital importance to the wise and scientific management of fur bearing species and other wildlife in order to maintain the health and stability of their populations; and

WHEREAS, the utilization of the annual population surplus of fur bearing species is a basic principle of wildlife conservation in the United States; and

WHEREAS, the leg hold trap has been identified as the most effective device for capturing the broad range of fur bearer species and is responsible for 70% of the annual fur bearer harvest in the United States; and

WHEREAS, a total ban on trapping would cripple the American fur trade which contributes $1.2 billion annually to the U. S. and world economies and provides work for one-quarter million Americans, and nearly one-half of the fur industry's business is dependent on the sale of wild caught furs; and

WHEREAS, legislation now before the U. S. House of Representatives, (H.R. 1797) would effectively end interstate and foreign commerce in leg hold traps, and fur taken in these devices and would, therefore, affect most trapping in the United States;

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Wildlife Agencies assembled at its annual meeting in Hannibal, Missouri, on July 16-19, 1984, expresses strong opposition to H.R. 1797; and

BE IT FURTHER RESOLVED that a copy of this resolution be transmitted to appropriate Congressional committee members.

Ed Hansen: Mr. President, I move acceptance of this resolution.

Larry Gale: Do we have a second?

Bill Hanzlick: Second.

Larry Gale: Any discussion? Those in favor, say aye.

Response: Aye.

Larry Gale: Opposed? None. Motion carried.

Ed Hansen: Harvey Nelson pointed out under a previous resolution that we passed, Resolution No. 5, there is language in there regarding the amount we said should be not less than $6 million dollars currently authorized. Harvey pointed out that the current level is $4 million so the resolution should read "not less than $6 million as originally authorized and I move that the motion be amended as such.

Bill Bailey: Second.

Larry Gale: Any discussion? Those in favor of the amendment, say aye.

Response: Aye.

Larry Gale: Opposed? None. Motion for adoption of the resolution as amended.

Jim Huntoon: I so move.

Bill Hanzlick: Second.

Larry Gale: Those in favor, say aye.

Response: Aye.

Larry Gale: Oppose? None. Carried.

INSERT AMENDED COPIES OF ALL RESOLUTIONS - 1-7

Larry Gale: The next item of business is the report of the Nominating Committee, Mike Conlin is substituting for Dave Kenney.

Mike Conlin: Thank you, Mr. President. The Nominating Committee consists of: Al Farris, Iowa; Jim Huntoon, Wisconsin; Rich Goulden, Manitoba; Murray Smith, Ontario; and Dave Kenney, Illinois. The nominations are as follows: President - Bill Hanzlick, Kansas; 1st Vice President - Jim Ruch, Colorado; 2nd Vice President - Rich Goulden, Manitoba; Treasurer - Fred Warders, Kansas. Is there any discussion or nominations from the floor? If not, I would move, Mr. President, that this committee report be accepted.

Larry Gale: Is there a second?

Ed Hansen: Second.

Larry Gale: Those in favor, say aye.

Response: Aye.

Larry Gale: Oppose? None. Congratulations, Mr. President. I believe we have one month lag time to clean up the business with this meeting and then the new President takes over at that time.

Bill Hanzlick: Take all the time you need, Larry.

Larry Gale: We have had several suggestions in past years that we should change the dates of the annual meeting partly because it conflicts almost every year with the Western Association and we have at least one member that holds duel membership and that creates some problems and possibly some for other reasons. Bill Bailey was one who suggested we should consider another time for the meeting. Do you have any suggestions along that line, Bill.

Bill Bailey: I have visited with several people since I've been down here and, frankly, there doesn't seem to be a better time than what we have. Our problem, I have missed the last two meetings because of conflicts with the Commission Meetings which occur any time but I can depend on July. But the latter part of July with the Midwest, the Flyway Council meetings, and followed shortly, thereafter, with the International, there is a period of time there when some of us begin to wonder when we are going to get back to the office. We have so many things compressed together, but I don't know of a good time.

Larry Gale: When this was first mentioned to me, it seemed to me that it would be very difficult to hold it any later because of the Flyway Council meetings, and the International, so I would think if we were considering a change, it would almost have to go up into June and whether that would be any better than July, I don't know. Personally, I don't think it would make a great deal of difference to us. Ordinarily, the weather might be a little milder in June, but other than that, I can't see a whole lot of difference, but I'm not sure it would be any better than the present date. Are there any other ideas about a possible change? Well, if not, I think we'll let that one go. It is something that could be taken up again sometime if the group wants to consider such a change.

Ed Hansen: Are our meeting dates dictated by our By-Laws?

Larry Gale: I'm not sure what they say on that. Do you know, Fred. Fred's not here.

Ed Hansen: I am just wondering if that is an option of the state that is hosting it.

Larry Gale: I would think the host certainly has a lot of latitude to set those dates. It has customarily been in July but I don't know, frankly, if the By-Laws make that specific or not.

Jim Huntoon: Is this going to cause a problem for Colorado the year after next?

Larry Gale: The last time Colorado hosted the meeting, as I recall, we had a joint meeting of the Western and the Midwest together in Colorado, so they might want to consider that when they have the meeting.

Walt Graul: We're hosting the Western next year. All I can say is that it is obvious with the two overlapping that frequently the director has to choose which to attend.

Ron Skoog: Well, I'm, of course, new but I'm not so used to the heat yet. I'd rather have something in June.

Bill Bailey: The only other month I was able to come up with was May and it's at least two months after the North American and it tends to be maybe a little bit early.

Larry Gale: I wouldn't want it too early in May to interfere with turkey season. Is there a motion to either change the dates or leave them along. What action do you want?

Bill Hanzlick: Mr. Chairman, I move we maintain the same relative dates in July. I think over the years many of us have programmed our whole activity in July to coincide with the

Midwest about this time in July and the Flyway Council and I don't know that you will ever pick a nice time.

Larry Gale: There is always something going on that might interfere. We have a motion to stay with the July dates. Is there a second for that?

Larry Wilson: Second.

Larry Gale: It has been seconded. Larry Wilson, I believe, was the first one. Any further discussion? Those in favor, say aye.

Response: Aye.

Larry Gale: Oppose? None. We stay with the July dates. Director Kenney had asked that we put an item on the agenda to discuss the reported excessive kill of waterfowl in Mexico and Central and South America. Are you prepared to talk about that, Mike?

Mike Conlin: I don't have much information, Larry. Director Kenney did write Larry Gale a letter in May with his concern. Let me read his letter as follows:

Dear Larry:

One of our most ardent advocates of conservation as far as waterfowl are concerned has become alarmed over the heavy kill of ducks and other migratory birds in Mexico, Central and South America by persons from United States who respond to advertisements offering tours and hunting opportunities almost limitless in nature. He feels that grave danger is being done to the resource primarily by persons from the United States who are recruited by tour agencies using United States mail.

If you agree that this is a problem, would it be desirable to discuss it at least briefly at the Midwest meeting? This could be done through the agenda or the introduction of a resolution. Because of the migratory nature of the question, it might be possible to consider an act of Congress to restrict the advertising of opportunities to kill almost unlimitless numbers of birds.

So he didn't put it in the form of a resolution or anything like that. It is just, I guess, an item for discussion if anyone thinks it is a problem. I am not aware that it is a significant problem relative to our wintering populations although that is the reason it was brought up for discussion. Is it something that this Association might want to consider? I am sure that there are a number of hunters that do that but as far as there being a real impact on the wintering populations, I don't know what that might be.

Larry Gale: I've known some people who took part in this hunting and it's true that they shoot the hell out of them, but my impression is that it's such a limited number of hunters, that it probably doesn't have any significant impact on the populations. Is there anybody who would like to speak to this subject?

Harvey Nelson: I might just offer a suggestion if I may. It would seem to me that this is a problem that everyone has had periodically and it may or may not be always factual but there is an underlying concern. It would seem to me that if one wished to pursue that as a recommendation for the Association, perhaps the Wildlife Committee of the International could address. They have done those kinds of things before.

Larry Gale: As you say, it has come up. I can remember at least half a dozen times, and the answer is always the same. Yes, it is happening but the numbers involved, the number of hunters are so few that it apparently dwindled off to nothing. Do we have a motion to take whatever action you see fit?

Ed Hansen: Mr. President, I move that we ask the Migratory Wildlife Committee of the International to look into this situation and consider it as part of their committee action.

Larry Gale: Did you hear the motion? Is there a second?

Jim Huntoon: Second.

Larry Gale: It has been seconded. Any further discussion?

Ken Babcock: Larry, I think it might be important. I think where Dr. Kenney is coming from may be a result of a very agressive attempt on the part of tour agencies out of the St. Louis area. I think the push for this type of thing, I think as much as anything rather than just the impact it is having, the nature of this kind of activity because I'm not sure how scrupulous some of the advertisement really is and some of it really does go beyond almost to the point of saying that there is unlimitless harvest opportunity when, in fact, there are controls on the harvest, which seems unlimitless compared to the restrictions we have state side but I think the advertisement itself may be aggravating the problem more than just the magnitude of the kill.

Jim Huntoon: Do we have good examples of those? I guess this is new to me and I guess if people were to see examples of this type of advertisement, we could decide on some appropriate action and Migratory Committee of the International could be supplied with those bits of information to make some kind of decision.

Larry Gale: Okay, the motion is to ask the International's Waterfowl Committee to look into this. Is there any further discussion? Those in favor, say aye.

Response: Aye.

Larry Gale: Oppose? None. Carried. Monday of this week, I received a notice of the Public Waterfowl Regulations Hearing in Washington, taking place the first week of August. I think all the Directors received a copy of this notice but they have asked the Associations to designate representatives if they so wish. Is there any state here who plans to send somebody that would like to have that person designated as a representative of the Midwest Association? If so, I would be glad to make such a designation. The time is right on us. They want to know by July 30 so let me know now or not later than the first of next week.

Ron Skoog: Is there apt to be a lot of opposition to these? Is there reason to send representation there for support?

Larry Gale: There has been some at times. I think, probably, and Harvey may want to address this, but the most likely thing is somebody like the defenders or one these groups that wants to shut down the black duck season or something of that sort. I think that is probably a greater danger than just a humane aspect of it. Harvey.

Harvey Nelson: I would be pleased to add my thoughts to that. We had a meeting in Washington on the 6th, which some of you people were present at or your representatives were, and the purpose of that meeting was to meet with the Canadian delegation with provinces and Canadian Wildlife Service to kind of take an early look at what the production is really going to be this year in the duck world, particularily on the Canadian prairies which is pretty grim, and the secondary purpose was to try to get as much of this out on the table back early July rather than hitting everybody cold with it at the time of the status meeting in Denver next week, so out of that came a pretty gloomy forecast. We won't know until next Wednesday whether it is going to be any better or worse, there is probably just as good a chance that it will be worse instead of better, in my opinion. Now, that is going to result in a lot of concern about whether or not to continue to stabilize regulations. Canadians have already said that they do not favor doing so but they hesitate taking unilateral action. We don't know what's going to happen. It's likely that they will further restrict on the three provinces, Manitoba, Saskatchewan, and Alberta, so I think, Ron, to answer your question, yes, I suspect there will be strong concern about

where we are headed, not only for black ducks, but the fact that breeding mallard populations in Canada are at an all time low.

Ron Skoog: I guess a follow-up, Larry, would be whether it would be desirable to have representation there.

Larry Gale: Personally I would consider it desirable if anyone has the interest and ability to send a representative. I would be glad to designate any of you as an Association represetative.

Ron Skoog: Michigan will send a representative.

Larry Gale: The next subject is a presentation from the Quail Unlimited Organization. Some of you are familiar with it and some of you may not be but we have Jim Gerhart here to tell us what it is all about. Jim.

Jim Gebhart: Thank you. Before I go any further, I would like to extend my wife's and my appreciation for the hospitality and fellowship that you people have provided us. We have really enjoyed your company. We had a tremendous time and I'm going to try to keep this fairly short because I have cornered most of you on Quail Unlimited already and we've pretty much gone over many of the things. The organization would like to present to your Director our 1984 Quail Unlimited stamp print by Terry Redland and for the support in allowing us to come up here and number two working basically with the Midwest people with Quail Unlimited. We appreciate your efforts and we sure appreciate the efforts of this organization.

Larry Gale: Thank you very much, Jim.

Jim Gebhart: Quickly, Id like to go over one or two things that Quail Unlimited is trying to do. We are strictly a habitat related organization. For those of you who do not know too much about Quail Unlimited, our funds are raised very similar to Ducks Unlimited but the funding program changes in that 80% of the funds are given back to the state where the funds were raised, 60% go directly to the chapter that raised them to be spent on habitat projects and whatever that particular area needs. We do not dictate these habitat projects from the National organization because in Georgia we can't very well tell someone in Kansas what they need to keep their quail moving. The only thing that we say when we give the money back to the chapters is that it doesn't go for Jim Gebhart's private hunting club. We work on either private land or public land, and we really lean on your organizations and your expertise to help our chapters out as to how to spend their funds. They get real excited raising it and they want their money back real fast which we give to them but two weeks later they will call and if we don't have a regional director in that state, they say, "help us, where do we spend it", and at that time we go through whatever literature we have and we try to marry them up with one of your agencies. Quail Unlimited had its first banquet in the Midwest in Logan County, Illinois last year. Illinois at the present time has the largest membership within Quail Unlimited and we now number a little over 14,000 and Illinois is pushing the 2,500 membership range, and it is very close with Georgia, they sort of flip back and forth every year. We have strong support in the state of Missouri and the state of Kansas and we are just starting to get into Indiana

and Ohio. I believe your organizations and your people will enjoy the support from the dollar bill standpoint and also from the standpoint of working with fellow sportsmen. We have a lot of good reception from the private landowner and every time we've got into a situation where we needed a little help getting into the private landowners' areas, we got aboard with the states and they have helped us a lot. Briefly, I've got a few items in the back that explain the Quail Unlimited program. I will entertain any questions from you after the meeting cause I sure don't want to hold up those who have to check out. I would just like to thank you again. From our side of the fence, we've enjoyed it. I got a chance to do the politicking that I needed from our organization with some good scotch, some good beer, and a few good shooters. Thank you very much.

Larry Gale: We are in good shape on time and we could entertain one or two questions now if you have any. Okay, you can see Jim after the meeting then. The next one I have on the agenda is a subject that Ron Skoog asked that we discuss, current anti-trapping campaigns. We've talked about the Federal legislation, was there something else that you had in mind, Ron.

Ron Skoog: It was something my staff brought up. I don't know to what extent these campaigns are moving forward or not. Do you have a problem within Missouri?

Larry Gale: Five or six years ago, we had a major campaign under way. We were able to quiet it down and I don't know whether the ring leader has died or what but I haven't heard from him for two or three years, so we don't really have anything strong going on at the present time. We do have some anti-trapping sentiment that could be fanned up if somebody organized it but it's not active now. Do any of the other states have anything going on at the present time? Ed.

Ed Hansen: That is an interesting question to be brought up because we haven't had any legislation for quite a few years for that. Before that, we had it every year. I think we all ought to be aware of what's going on in our local cities maybe and that is the thrust that have been attempting in Indiana, in West Lafayette where Purdue is, a chapter at the University has gone through the City Council to introduce a ban on the use of leg-hold traps within the city limits. So far, this has been beaten down in that the people against that were able to convince the council that they ought to establish a task force to take a look at and identify specific problems and the needs to do this because they were given information to indicate that there were problem areas within the city that weren't developed that trapping needed to be continued because of say problems with muskrats and raccoons within the city limits. So right now it has been beaten down but I think that all the states should be aware that this could be a thrust that may be on-going and depending on what happens here, if the council brings that up again or not, we may challenge their authority to do that because

they are not talking about public health and safety, they are talking about just banning the use of trapping, which is not within their authority, but so far, we aren't going to challenge it until they actually pass that ordinance. This may be the thrust coming by the people in association with the Humane Society.

Walt Graul: (Inaudible)

Max Duckworth: In Ohio we have mobilization for animal rights which now has an office in Columbus and here about a month ago we held a hunter safety course at our office in Columbus out on 1500 Dublin Road, they left me a great big wreath made out of straw and hay and so forth for all the animals that had been trapped and killed, with a little memo they left me, and we had the same thing with our township passing anti-trapping legislation. Here a year or so ago we got a whole new government and the townships thought they had jurisdiction over us in reference to wildlife, which they haven't because we did take them to court on this challenge with this trapping issue, and due to some other factors, we lost and we are going to appeal. (Inaudible)

Ron Skoog: Does this opposition pertain to all trapping?

Max Duckworth: All trapping.

Mike Conlin: In Illinois for the last six years, we have had legislation to ban leg-hold traps. We have successfully beat that down each year with supportfrom Farm Bureau, etc., but it seems to be a growing sort of problem there to get thousands of names on petitions throughout the year, but I know the sentiment is there and the problems we'll continue to deal with in Illinois and I suspect throughout the Midwest.

Jim Huntoon: Occasionally, we get some kind of a challenge like that. As a matter of fact, one of our representatives was putting his name on the leg-hold legislation we discussed here this morning, but since that time, several of the trappers organizations within the state have written him and we have too and attempted to educate him and it was purely a case of him being unaware of the value to the industry and so forth and now he has said that he will take his name off that legislation. I think in a lot of incidents it is a matter of getting to these people who are in a position of power and educate them to bring them around.

Larry Gale: As Mike mentioned, our state trappers organization has elected some new officers and their current president is well educated and a very effective speaker. He does a much better job than they used to do in putting their case forward. That has been a problem in the past but it has helped a good deal in getting better public acceptance in what they are doing. They have had quite an educational program.

Larry Wilson: I'd like to make a comment about the situation we had in Iowa during the last session of the Legislature. I am sure that we have our share of anti-trappers there like all of you do. However, that particular group has remained silent over the last year or two. At one time, we had a proposal in the Legislature to ban leg-hold traps that didn't go anywhere. We've been working with some senators who have an interest in special devices for the conibear trap or something like that. We don't really view that as a particular problem to us but the anti-trapping element is still there in Iowa certainly and it is like a lot of these other problems that we referred to earlier. They seem to be cyclic, they come, they go, interest is up, interest is down. Probably the one flurry of activity we had in the last session of the Legislature came from the trappers themselves and they were, Al, help me out on this, but there was a group that was trying to do away with conibears and snares, and we had them fighting among themselves and calling for legislative hearings, and of course, out of 150 legislators, you're going to find two or three that are willing to hold hearings. No legislation that was ever proposed that got out of any committee so we didn't have any problem with that but once that seed was planted in the minds of people, they will be thinking about this and one thing that did concern me was that one of the hearings they had at the Capitol, there was a movement to have the State Conservation Commission develop a trappers ethics and safety training program. Well, you know what that means, it means more additional responsibility and demands on our time without the funds to take care of them. So, we thought that was an interesting raise in a problem that we usually lay over to the anti-trapping element in society but the problems we had last year came from the trappers themselves. Do you want to comment on that further, Al?

Al Farris: Yes, in fact they formed their own organization entitled "CACTAS", Citizens Against Conibear Traps and Snares, and the funny thing about it is that I spent several winter nights driving to Winterset, Iowa, negotiating with these two groups and all the leaders of CACTAS are former fur buyers and active trappers and their goal is to eliminate the conibear and snare but leave the leg-hold trap.

???: What is their logic?

Al Farris: What's their logic? They are all rural people and their logic is that the loss of a large number of domestic dogs and some cattle, rarely but sometimes a calf will stick his head in a conibear and get his nose caught and bleed to death and suffocate on its own blood, but that was the emphasis, because of a large number of dogs were caught in this area in snares and conibears and killed and so we tried to mediate between the hunters and the trappers association but we couldn't get either one of them to move enough to find a common ground so we just said "well, we'll see you in the Legislature".

Larry Wilson: One thing we tried to point out to them was that they were moving against snares and conibear traps and we tried to point out to them that the anti-trapping movement in this country started as a result of publicity generated through what the leg-hold trap does, not through what a clean, quick kill a conibear does, but it was a rather difficult group to work. We probably see as many problems coming in the future in working with the trappers as the anti-trappers.

Larry Gale: Sounds like our State Coon Hunters Association.

Ron Skoog: What about offset jaws?

Harvey Nelson: I might add that there is a movement surfacing in the twin city area of Minneapolis/St. Paul directed mostly at raccoons and muskrats, but primarily at over-population of raccoons. They have been permitting leg-hold traps and now some of the suburban governments, like I live in the city of Bloomington, they just passed legislation that prohibits the use of leg-hold traps but they they still authorize live traps. That has started to grow around the suburban areas. It has not entered the State Legislature to my knowledge yet, but the feeling is there.

Ron Skoog: Hey, Mikula, what problems have we had in Michigan?

Ed Mikula: There is a bill pending like in Iowa with the large conibear because of dog problems. Interestingly in our state, we had a shotgun marriage between the coon hunters and the trappers. They are now realizing that it is in their best interest to work together, not fight each other. Which is very interesting that they are working hand in hand, as the result of a mutual problem.

Larry Gale: We had ours married but they got divorced. We, by regulation, restrict the large conibears to either water sets or six feet above the ground within a building.

Ed Mikula: We also had a local ordinance passed in a township to prohibit trapping and that is being handled by our Attorney General right now. They didn't have the authority and they are being challenged.

Bill Hanzlick: In Kansas, we have run into the same thing with conibears and snares. We've had legislation of sorts. It hasn't gotten too serious but last year we did get legislation passed and now we do have a trapping education program in the state of Kansas and, in fact, the trappers themselves pushed for that very strongly. It does take effort on our part. We are utilizing the trappers themselves as instructors but we feel that is probably the only way to go is to start educating those youngsters now and, hopefully, it will lead to a little less of a problem if we all face it more willingly.

Jim Huntoon: We have a similar program.

Larry Gale: Maybe we better move along to the next subject which is the state funding problems. This was also suggested by Michigan.

Ron Skoog: Mikula, are you going to talk about that?

Ed Mikula: What are the mutual problems relating sources of funding, recognizing that inflation is eating us alive and our license fees aren't keeping up. Are other states experiencing the same problems we are? How are they addressing the problems to seek additional funding?

Larry Gale: There is a very active campaign going on right now in Arkansas. I called down there Monday and got a progress report on it but since Steve Cole is here, I'll let him explain what they are doing and what their prospects are.

Steve Cole: We are attempting to do the same thing that Missouri did a few years ago and get the 1/8 of one percent sales tax dedicated to the Game and Fish Commission. we're in a similar situation that Missouri is in. We are also a constitutionally created organization or agency and this will be a constitutional amendment effort through signatures and a referendum. We've got our signatures, we hope. We submitted them and we are awaiting the results from the Auditor's Office, Secretary of State's Office to confirm that we do have sufficient number of valid registered voters' signatures. When we get that done, we'll be going into a full campaign to try to get it passed on the November ballot. We are very hopefully that this will double our budget. It will be about $15 million in Arkansas.

Larry Gale: We are certainly hopeful that that will pass in Arkansas. It has been kind of lonely out there when they say "You're the only state that is getting this. Why should you have it?"

Steve Cole: We'll be happy to join you.

Ron Skoog: One thing Michigan is looking at is trying to get a bigger cut out of the fuel tax that we have in the state on gasoline for use on boating facilities as well as snow mobiles, trails and off-road vehicles. Right now, most of that money goes to our Department of Transportation and we get a small cut of it right now for boating. We are looking to get a full cut for our appropriation. Based upon the percentages of gas bought by motorists in Michigan for snow mobiles and off-road vehicles, we should get about five or six times the amount for our Department. That's an argument now with that department because they don't want to lose the money but we have a lot of supporters.

Larry Gale: We took a shot at that several years ago before we had the sales tax and there was a lot of public support from the

sportsmen and boaters to get a cut of that marine fuel tax. The Highway Department didn't, or said they didn't know how much it was because they didn't have good records on what was claimed and what wasn't claimed by the individual using it for boating purposes but there was enough interest in it at the time that the Highway Department set up a special program of paving access roads to some of our fish and wildlife areas, and for awhile there, they were spending about a million dollars a year on that, but then after some of the Federal highway funds dried up, they decided they couldn't really afford it so they discontinued the program but we did get some nice access roads built while it was going on. Of course, they don't feel now that we really need it any longer. Any other comments or suggestions on funding? A number of states, of course, have been successful in getting the income tax check-off and it has been very successful in some states and not too good in others as a source of funding for mainly non-game programs.

Ed Hansen: There was mention of inflation and what that does to states that have it now and we able to get it two years ago. That is the lifetime hunting and fishing licenses, that going into a trust fund and the interest going into your operating fund. Our Legislature voted the interest provides 2% of the principle also goes into that trust money and we look at that as kind of a hedge on inflation and it has just been two years so we are just getting into it but we have almost $200,000 in the trust fund and in a state like Oklahoma has I think $7,000,000, so our approach on that was that it is a hedge on inflation with a little bit of your money being dedicated and drawing interest and going into your operating fund.

Ed Mikula: We're also proposing developing a trust fund for all minerals that are extracted in Michigan. We have a potential pool of oil and those oils and other minerals involved with fish and game purchase of land go into a perpetual trust. They are talking about capping it at $100 million and interest to be used for operation of the fish and game program.

Larry Gale: Are all of you drawing interest on your funds in the state treasury now?

Bill Hanzlick: We tried and got horribly beat, bloodied in fact.

Steve Cole: Did you take it to court, Bill?

Bill Hanzlick: No, not yet. That might be the next step.

Steve Cole: That's what we ended up doing in Ohio. A suit was brought by the Wildlife Legislative Association against the State Treasurer for withholding interest monies from the Division of Wildlife as stipulated by the Constitution that all the money generated by the fishing license sales go to the Division of Wildlife and that interest on that money was considered the same as their money. They won in court.

Larry Gale: Our State Highway Department took the Treasurer to court and was successful and so when we suggested we might have to do the same thing, they decided to work it out.

Steve Cole: Arkansas just put the money in the bank before they put it into the State Treasury.

Larry Gale: That would be a good way to go to prison in Jeff City.

Steve Cole: Actually, under our constitutional amendment to establish us, it was perfectly legal and the Legislature was a little upset so we told them, "Okay, you give us our interest and we'll put it into account" and they agreed.

Larry Gale: Any other questions on funding?

Bill Hanzlick: One interesting backlash about your 1/8 of 1% sales tax, we have a number of people coming to Kansas from Missouri and the word gets out whose licenses cost what. Our people are now getting unhappy because Missouri's fishing license is quite reasonable and we are building a new hatchery and funding it out of the bond issue which calls for every fisherman to buy a $3.00 hatchery stamp. We are getting more and more fishermen cry about "Hell, I can go to Missouri and fish cheaper than I can in Kansas as a resident" so you guys are causing me all kinds of problems.

Larry Gale: Bill, interestingly Arkansas has told us the same thing.

Al Farris: You want to hear it from Iowa.

Larry Gale: I want to alleviate your concerns. Of course, there are several reasons we haven't increased our fees recently but our balance in the State Treasury has been relatively high and we couldn't see the logic of increasing fees and raising still more revenue until we worked that balance down. Now, we have worked it down to what I consider a safe level and I would say within the next two years, we will undoubtedly be raising our resident license fees because we, of course, never made any commitment that we were going to keep those forever where they were. They've been down there for about eight years now and we thought all along that we would have to maintain a reasonable level of license fees as we went along and that is what we intend to do but historically before we had the sales tax, our licenses were definitely on the high side of the national average and now they are definitely on the low side so we will be bringing them up before long. We'd like to help you all out. Anything else? Okay, the next subject then, again from Michigan, is the extent of public imput into resource decisions.

Ron Skoog: What was that about Mikula?

Larry Gale: He said you suggested all these things.

Ron Skoog: I was wondering what, on the one hand, other states were doing in holding public meetings before they made decisions about regulations and changes in laws, regulations, policies pertaining to fish and wildlife management. In Alaska, they do an extensive amount of that, more than necessary, I think. They spend ungodly amount of time every year on the regulation changes because everyone has an opportunity to suggest a change. Their fisheries spend as long as six weeks, seven days a week, working on regulation changes, and the wildlife will take two full weeks. In Michigan, we don't have that same public participation other than if anyone wants to come to Commission to make a presentation. We are getting more and more input, especially on our environmental protection matters involving the public who are disturbed about landfill, _____(?)_____, water quality, and I was just curious what other states, how much they are committed to holding public meetings and holding public hearings.

Larry Gale: We only hold formal meetings when there is some special need and it happens occasionally when there is a new regulation and we are expecting or encounter substantial public opposition, we may hold a public meeting to explain it. When I first came to the state, the Department had a policy of holding regulations meetings in each region and had done so for a number

of years but it had reached a point where most of the people who attended those meetings were Department employees so it didn't really make a lot of sense to hold these meetings with ourselves and maybe only have half a dozen come out to attend the meetings. We do have, I might say, a Department Regulations Committee that meets each month and we frequently have members of the public attend those meetings to either present their ideas for new regulations or to discuss ones that are in effect, and I think that is a good procedure. It allows the public to express its opinion. We also, by request, will schedule a meeting with the Commission on regulations or other subjects and we have hearings almost every month. It happens that this month for the first time in several, we don't have any public hearings scheduled but sometimes we may have as many as three or four on various subjects so the public does have full access to us but we don't, as a matter of course, schedule a bunch of public meetings for that purpose. What are other states doing?

Jim Huntoon: We have legislatively mandated assistance for changing fish and game rules, involving public participation. We have a Conservation Congress that advises our Citizens Board. That is a year long process. They go on with committee meetings which involve people from our Department which culminate in a spring hearing, each one of the counties has elected delegates and everything else, consider each fish and game rule change and suggest their own and I would say that we talked about two weeks and we end up involving, if you were to bunch it all together, a month or more of our time which goes into public participation just for considering fish and game rule changes each year. Beyond that, there is an extensive citizens' participation effort within the Department. Sometimes that is good, as you might expect, and sometimes it is not so good. In fact, we've got into a situation now where we have a master planning clause on each one of our state owned areas which talks about how much land will be acquired and what kind of development is to go on that land, and through this master planning process, we hold public information meetings, not formal hearings, but public information meetings. This has kind of backfired because in situations where you've already acquired 80% of the land, or even consider the land we intend to acquire, they are making us go back and reinvent the wheel and make us decide what configuration the project is going to have and how much development we are going to have. This has backfired. It is not a good system. We go from one end of the spectrum to the other.

Larry Gale: I should mention too that we have a Missouri Register system patterned somewhat after the Federal Register and there is a statutory exemption on seasons and limits but any other regulation must be subjected to public exposure and comment for at least a 30 day period so this is intended to give the public access and opportunity to comment on all regulations, not only ours but all other state agencies. The biggest problem

with that though is the public generally doesn't see that register. It is fairly expensive to subscribe to and half the lawyers don't even have a copy so, in my judgement, it hasn't really been fully successful in accomplishing the intent but it is available and people who want to go to the trouble to find a library that has the register can see what is happening month by month and have an imput that way. It has to be a matter of record if you have comments and your decision to accept or reject.

Ron Skoog: Ed, in Indiana does the Legislature pass your regulations.

Ed Hansen: No.

Ron Skoog: The Commission does or the Board?

Ed Hansen: Our Board does. They've got a mixed bag of regulations but I don't think they are literally set in concrete. I shouldn't really say that. The Board passes on them and then indeed they do go before the legislative bureau, but as a rule, most of them don't. There is that opportunity.

Larry Gale: You see the Legislature has no control over our regulations. Our Commission writes the entire Wildlife Code including fees. Any other comments on public imput? I am sure you all know that Steve Cole is now in Arkansas and he has indicated that the Arkansas Fish and Game Department might have an interest in becoming a member of this Association. Would you like to address that, Steve?

"1984" Meeting

Steve Cole: Thank you, Larry. It's nice to come up and visit with old friends and get back up into the Midwest that I still like to call home. I have been down in Arkansas for about a year and in looking over the State of Arkansas and some of the familiarity that it shows me is common throughout the Midwest and the habitat types and the wildlife species and the association with the Mississippi Flyway and the migratory species and talking with Steve Wilson, the Director of the Commission, and we had talked to the Chairman of the Commission somewhat, and there is an indication that we would like to request for your approval that Arkansas become a member also of the Midwest Association as well as the Southeast Association. This will require an action of our Commission if you do chose to give us your permission and so I would not be able to speak today one way or another but before we can take it to our Commission, we need some indication of what the approval or disapproval of the Midwest Association would be on this and what required action would have to be taken, whether it requires by-law changes or whatever. I'm not that familiar with the current situation. So I would like to throw it all out to you, if you all would like to discuss it and kick it around, we sure would appreciate it.

Larry Gale: I believe this would require a by-law change because I think the agencies are listed in the by-laws so it would require that kind of action. Personally, I would be in favor of extending an invitation to Arkansas. We already have duel membership in the Southeast with Kentucky and Missouri and used to have Oklahoma, although they opted out of the Midwest and limit attendance to the Southeast at the present time. I'm not sure what the best way would be to kick this off. I guess maybe we could have a motion to submit an amendment to the by-laws to extend the membership to Arkansas if somebody would like to make that kind of a motion and then it would have to be acted on at a later annual meeting for official action.

Larry Wilson: Why would that have to be done later, Larry?

Larry Gale: I think you have to send out a notice to change the by-laws. Isn't that right, Fred?

Bill Hunzlick: You can probably change it by mail, though, can't you? Can you change it by mail?

???: We've done that before. There is a procedure to change it by mail.

Fred Warders: Larry, you can accept a new member by majority vote of the organization but to get it into the by-laws, then you enact the procedure you're talking about.

Larry Gale: Okay, you think we could?

Fred Warders: Somewhere along the line the majority of the group should vote to accept Arkansas into the group.

Larry Gale: Okay, I will accept a motion to invite Arkansas to become a member with the idea that we will enact the necessary by-law change later.

Ed Hansen: Motion.

Larry Gale: I have a motion by Hansen of Indiana. Is there a second?

Larry Wilson: Second.

Larry Gale: Those in favor, say aye.

Response: Aye.

Larry Gale: Oppose? None. Carried. We invite you cordially to become a member.

Dean Murphy: It is sure going to screw up your plaque.

Larry Gale: Yes, we're going to have to draw a new picture on the plaque. It's a good thing we're running low on the supply, Fred.

Steve Cole: We have a Commission meeting next week, so we should know a week from tomorrow.

Larry Gale: Good. I have been asked to discuss the North American Waterfowl Management Plan and I'm not going to go into much detail on it for a couple of reasons. It would be fairly easy to say there has actually been no progress but that is not really fair because there has been some progress, but some of you may not know really what's going on. Several years ago, the U. S. Fish and Wildlife Service started work on a National Waterfowl Management Plan and the Canadian Wildlife Service did the same thing. The U. S. plan was completed last year, I believe, and the Canadian plan is either at or near completion now. A Steering Committee was set up and the International asked me to serve on it as the U. S. observer and the Fish and Wildlife Service hired Jack Grieb as the key man in writing this plan. The Canadians designated Sandy McCaughly who is with the Canadian Ducks Unlimited organization and we have had a lot of growing pains. I believe the first meeting of the Steering Committee was set for sometime in May of this year. It was postponed at the request of the Canadians and a second meeting was set for sometime in June, as I recall, or July. That one was also cancelled and we are now told that the first meeting will be held during the last week of August. This is still a little bit iffy, but the purpose, of course, is to come up with a coordinated plan for the North American continent. After completion and the original date of completion, the goal was January, 1985, for at least a draft approved plan and it was to be signed by high ranking officials on both sides, possibly the Secretary of Interior and his counterpart in Canada. I'm afraid that time schedule has slipped far enough back that it is doubtful that it will materialize that soon but Jack has done a lot of work with the various flyway councils. Some of you may be representatives on some of these committees that have worked with him and he has sent out several reports showing how this would be approached. I have been somewhat concerned about the amount of detail in these plans because I don't feel that myself as a U. S. reviewer and, probably the Canadians, particularly considering the people who would ultimately sign off on these plans, are not really equipped to go into that much detail. I was assuming they would be more in the line of a conceptual plan setting out some generalized goals and that sort of thing rather than to go into all this detail. At any rate, that is the way that they have been developed and the only thing I wanted you to know is that work is being done and, hopefully, we will have something before the International meeting and, if so, I'm sure Jack will be reporting on it in September. I know it has been a frustrating thing for him. Those of you who know Jack, know he is a real

goer and it is hard for a man like that to wait around for someone else to get the ducks in line, but that is the way it has been. I think he will get the job done if anybody can and he has been very anxious to have the input of all the states through the flyway councils so that is where it stands at the present time. Do we have any other new business? Harvey.

Harvey Nelson: I just have a short announcement. Many of you are aware that the Fish and Wildlife Service just released the publication, Flyways, Pioneering Waterfowl Management in North America. I had the misfortune, or good fortune, depending on how you look at it, of being involved with the editorial committee of four for the last four to five years putting this thing together. The others include: Art Hawkins, your former Mississippi Flyway representative, Ross Hanson, and Milt Reeves, all three retired, so that did pose a few problems. What we've done, we have the release in the Twin City area and we have made distribution to all Service duty stations, copies have come to all state directors across the country, chiefs of wildlife, the identifiable waterfowl biologist, and I am sure that down in your ranks people will wonder why they got overlooked. I just want to say that we had to draw the line someplace but if any of you have any concerns, you didn't get your copy, whatever, why, give me a call or drop me a note. It should have been done before Waterfowl Tomorrow because it is basically a historical document.

Larry Gale: It is a fine publication. We got ours a couple of weeks ago. I haven't read it but I did scan it and I was going to put mine in the Department library so if you have an extra copy, I'd like to have a personal copy.

Harvey Nelson: I forgot one thing, someone just asked. You can buy it also from the Government Printing Company, Washington, D. C.

Larry Gale: I didn't know anyone bought government publications. Thank you, Harvey.

Ken Babcock: Just a point of information, there have been several questions about these shooting clinics that Tom Roster put on here yesterday and just as a matter of information, we started our planning in Missouri to get this done about almost a year ago. Tom is in great demand. We've got one more clinic here in Missouri. We're going to conduct it in the St. Louis area tomorrow and he gets on an airplane the next day and goes to Tennessee for a week of these clinics. It is important that if you're going to try to set these up, because of the demand on Tom's time, you should move as quickly as you possibly can in terms of trying to schedule it. One other thing, again as a matter of information, much of what Tom presented in the lecture part of this thing is preliminary, unpublished information, and it is preliminary and unpublished because of the kind of schedule that Tom is keeping as a one-man show, he really hasn't had time

to dig into the analysis of some of the mortality information, penetration data, and patterning information that is available. I discussed it with Tom in Kansas City at the North American over a year ago and at that time, he was in hopes that somewhere down the line, he would be able to get the assistance of a statistician to help work on pulling this information together, doing these analyses, publishing this information in a form that it could be disseminated to all interested people, both in professional and out in the public. I think that much of this information in order for this steel shot/lead poisoning issue to continue in the direction it is going and maybe get over, a lot of this information is going to have to be disseminated in a mass form. It is not going to happen until additional assistance is given in some form or another, either through the International or through the cooperative that is presently set up to carry that out. There are just reams and reams of information that has come from the field testing that has never been analyzed, never been published and I think it could go a long way in bringing this thing over the hump. I just say that as an informational item because I expected somewhere down the line, through the flyway councils or the International or these kinds of associations, a request is going to be generated to try to provide some assistance in some form to get this done.

Larry Gale: This cooperative project would welcome additional members if anyone wants to join who is not in it at the present time.

Al Farris: Larry, if I may, I would like to take this opportunity to thank you and your arrangements committee for having Tom Roster here. We work very hard to sell steel shot and I will be real honest with you, other than the shooting I've done for my own waterfowl hunting, I've never shot it. I have shot it three years waterfowl hunting but I quite frankly didn't know a lot about what I was doing. Yesterday was almost a religious experience, if you want to term that program, and I really want to thank you for doing that because that was fun. For me, that was the most valuable part of this meeting and I really appreciate that.

Dean Murphy: Kenny, some people have been asking about the cost of the program. Can you give them an idea of what we put into it?

Ken Babcock: This is excluding the $1,500 contribution we made because that is small potatoes for what it cost to put one of these on. We put on four clinics including the one here and between $75-$100 per participant is about what it cost. That takes care of Tom Roster's travel and his expenses are paid by the Department to put these on, the shells, all the materials. There will be some indirect overhead costs involved with a

portable trap and some of these kinds of things, but it is between $75-$100 per participant is about what it cost to pull one of these off. And that is the major cost, the major cost involved is the shotgun shells.

Larry Gale: Before we leave, what you said. This program is no credit to me. The people you see sitting around the room here are the ones that made all the arrangements and did all the work so I want to make that clear if there is doubt in anyone's mind.

Dean Murphy: I would like to acknowledge the people that made this conference possible. Not all of them are here but I think the ones in the room, if you enjoyed yourselves, I'd like to have them stand up and you give them a round of applause: Stan Michaelson, Ken Babcock, Ray Evans, Jim H. Wilson, Tom Troughton, Linda Rodick. They are the people that really made it work.

Larry Gale: Is there any other new business? If not, I just want to say it has been a pleasure for me to serve as your President this past year. We've certainly enjoyed your being here and hope you have enjoyed the program, and so forth. I'd like to call on your new President to see if he has any words of wisdom for us.

Bill Hanzlick: As Al said, it was almost a religious experience, the whole week has, actually for me. When I get where there is trees, I go crazy anyway. We will look forward to hosting all of you in Kansas. We have already started the procedures. My man has met with the people in Wichita. We do have the dates locked in, by the way, and we will meet in Wichita at the Hilton Inn the week of July 15. We've got a few things planned that we think you will enjoy. I don't whether it will be a religious experience but we do hope to make it informative and enjoyable when you come to Kansas so we look forward to seeing you next year in Wichita.

Larry Gale: Thank you, Bill. We look forward to being there. Is there any other business? This is your last chance. Thank you all and come back to see us in Missouri anytime. The meeting is adjourned.

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