# ENDANGERED SPECIES ACT'S IMPACT ON SMALL BUSINESSES AND FARMERS

## FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON RURAL ENTERPRISES, AGRICULTURE, & TECHNOLOGY

OF THE

COMMITTEE ON SMALL BUSINESS
HOUSE OF REPRESENTATIVES

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# CONTENTS

## WITNESSES


| | Page |
|---|---|
| Hargrave, Ms. Rosemary, Missouri River Management Annual Review and Update | 5 |
| Hall, Mr. Dale, U.S. Fish and Wildlife Service | 6 |
| Wells, Mr. Mike, Missouri Department of Natural Resources | 9 |
| Keith, Mr. Kevin, Missouri Department of Transportation | 12 |
| Hurst, Mr. Blake, Missouri Farm Bureau | 25 |
| DeShon, Mr. Dick, St. Joseph Regional Port Authority | 29 |
| Smith, Mr. Chad, Nebraska Chapter of American Rivers | 30 |
| Davis, Mr. Paul, Interstate Marine Terminals, Inc. | 32 |
| Hanson, Mr. Bruce, MFA, Inc. | 34 |


## APPENDIX


| | |
|---|---|
| Opening statements: | |
| Graves, Hon. Sam | 43 |
| Blunt, Hon. Roy | 45 |
| Gibbons, Hon. Jim | 47 |
| Prepared statements: | |
| Wells, Mr. Mike, Missouri Department of Natural Resources | 49 |
| Keith, Mr. Kevin, Missouri Department of Transportation | 60 |
| Davis, Mr. Paul, Interstate Marine Terminals, Inc. | 64 |
| Smith, Mr. Chad, Nebraska Chapter of American Rivers | 66 |
| Hanson, Mr. Bruce, MFA, Inc. | 84 |
| Hurst, Mr. Blake, Missouri Farm Bureau | 86 |
| Hall, Mr. Dale, U.S. Fish and Wildlife Service | 89 |

# THE ENDANGERED SPECIES ACT'S IMPACT ON SMALL BUSINESSES AND FARMERS

**MONDAY, FEBRUARY 23, 2004**

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON RURAL ENTERPRISES, AGRICULTURE,
AND TECHNOLOGY,
COMMITTEE ON SMALL BUSINESS,
*Washington, D.C.*

The Subcommittee met, pursuant to call, at 9:30 a.m., at the St. Joseph Riverfront Hotel, 102 South 3rd Street, St. Joseph, Missouri, Hon. Sam Graves presiding.

Present: Representatives Graves, Blunt, and Gibbons.

Chairman GRAVES. We'll bring this hearing to order. I want to thank everybody for turning out today. I know this is a very important issue.

This is the Subcommittee on Rural Enterprises, Agriculture and Technology, the Small Business Committee, and we're going to be examining the estimated impact of the Endangered Species Act as it's having on small businesses and farmers.

I'm going to give my opening statement and then turn to Representative Blunt and Representative Gibbons to give theirs, but I would like to very much thank them for being here. Our neighbor to the south, Representative Blunt, is very, very interested in this issue. They have a stake in this issue too. Representative Jim Gibbons from Nevada has joined us today. He is the Vice Chairman of the Resources Committee. They have legislative jurisdiction over this particular issue, and I very much appreciate both of you being here today.

When the Endangered Species Act was passed in 1973, there were 109 species listed as endangered, such as the bald eagle. Today there are over 1,200 species listed as endangered, with 250 more considered candidates for ESA listing, and another 4,000 species that are designated as species of concern. I'm certain that when legislation was passed 30 years ago, no one could have foreseen because of the interior least tern, the piping plover, and the pallid sturgeon, the commerce of the Missouri River would effectively cease to exist. This will cause a major disruption for all of those who depend on the river for their livelihood.

When the U.S. Fish and Wildlife Service came out with their December 16, 2003, Biological Opinion, it stated the area trade on the river needed a mandated spring rise and split navigation season.

The decision will have a large impact on people and businesses that rely on the river for day-to-day operations. Annual retail eco-

nomic benefits from the Missouri River commerce are estimated at between $75 and $200 million a year. The Army Corps of Engineers estimates economic losses of at least $7 million to commercial navigation and train terminals as a result of flow decline below minimum navigation service levels. Already the prospect of summer lows caused two major shippers on the Missouri River to cancel their operation. This creates many problems for our farmers that utilize barge traffic to ship their goods at the cheapest rate. This financial burden is just another problem facing farmers in Missouri who continue to face season after season of drought. Any additional expenses are detrimental to their survival. The farmers themselves are becoming endangered species with only two percent of the population taking on this important enterprise. Barge traffic along the Missouri River also provides a safer and cleaner mode to transport goods. It takes the trucks off already beaten roads, reduces congestion, and limits the amount of exhaust in our atmosphere. Additionally, man-made river flows may increase the risk of flooding or create drainage problems along the Missouri River and its tributaries.

Our government should be doing what it can to prevent flooding along the river, not exacerbate it. Further inland, several main customers, rural and urban, depend on the Missouri River to supply their water and electricity in the heat of summer and the dead of winter. This is of particular concern with summer lows that may adversely affect the ability of utilities to meet the electricity needs of their customers during critical electrical demands. Still others yet rely on the river for the most basic needs of drinking water. Just like here in St. Joe.

In my view the Fish and Wildlife Service has not taken into account the very basic negative disruptions the submitted biological survey will afflict on people and their lives, as well as the local economy. While we should do everything we can to protect all of God's creatures, we shouldn't place animals or the lives of animals over the lives of human beings.

{Chairman Graves' statement may be found in the appendix.]

And now I'm going to turn to Representative Blunt for his opening statement.

Mr. BLUNT. Mr. Chairman, thank you for holding this hearing and special thanks to our friend, Congressman Gibbons from Nevada who came all the way here to talk about this act and the impact it's having on our state and share with us his knowledge as Vice Chairman of the Resources Committee the impact it has had on other places.

The Endangered Species Act is an example of the danger of unintended consequences. What began as a well-intentioned effort to protect the environment and our wildlife has had a profound impact on business in the State of Missouri and across the nation. Since the law's enactment, the list of endangered species has grown with each year, yet even in instances where the threat of extinction has been removed, it remains very difficult to remove a species from the list.

I'm looking forward to a productive discussion of ways Congress can address the effects this law is having on families and businesses here on the Missouri River and across the country.

Over-zealous environmental policy or misinterpreted environmental regulations can and do profoundly affect businesses and jobs at a time when we're working hard to get our economy back on track and create a job for every American who wants one. It's worth examining what roadblocks the federal government has unintentionally created. I think we're here today because the ESA needs another look. Chairman Graves has called for this hearing because the ESA is now being used to disrupt and even prevent commerce along the Missouri River, affecting the livelihood of transportation providers, shippers, and farmers, as well as the communities that they live in and create job opportunities in.

For example, the Fish and Wildlife Service is recommending that the flow of the Missouri River be changed to accommodate the habitat of both the piping plover and the pallid sturgeon. Such a move will dramatically alter commerce on the Missouri River and hurt the hundreds of people who depend on the river to make their living.

We should also strive to strike a delicate balance between people and nature. However, to drastically alter the flow of the river, increase the possibility of flooding, put many companies out of business, cut jobs, and perhaps even create electrical power and drinking water shortages doesn't make much sense to me.

I think your efforts, Chairman Graves, and the efforts of this staff to seek input and call attention to the problems here are well-founded. I'm glad to be able to join you today, and thank you for letting me be here. I look forward to the testimony of these great panels that you've put together.

[Representative Blunt's statement may be found in the appendix.]

Chairman GRAVES. Mr. Gibbons.

Mr. GIBBONS. Well, hopefully they can hear me. First I want to thank you, Chairman Graves, for inviting me to attend this hearing, and I want to congratulate Missouri. Missouri. I've learned how to pronounce it now that I've been here so long. Most people don't pronounce Nevada correctly. They say Nevada—it's Nevada—but I want to congratulate the people of Missouri for electing two wonderful representatives of Congress who stand up for the rights of people like you sitting in this audience who understand the issues, who are not timid about speaking up and trying to set the course straight.

Although I'm not a member of this Committee, the future of the Endangered Species Act, of course, remains at issue for me as the Vice Chairman of the Full Resource Committee which continues to study the law in an effort to find ways to protect both species and the people and their rights.

Originally this law was well-intended; intended to preserve species that were going into extinction, like the grizzly bear and the bald eagle. However, after decades of languishing without modernization, we have found that now it is used as a tool of abuse. A tool by some groups to stop and prohibit both people and efforts to have a living or to create a working environment that allows for them to succeed.

The one aspect of the Endangered Species Act that especially concerns me is they give the federal government carte blanche over

private property without the responsibility of compensating the owners for either loss or denial of use or financial loss as a result of that denial. Now, this is nothing more than a governmental taking which is prohibited by the Fifth Amendment of the Constitution, and let me explain that nearly 80 percent of the listed species depend on private property for their habitat.

If landowners provide suitable habitat for the endangered species, they run the risk of their property being subject to severe governmental regulations or an outright restriction of the use of enjoyment which just recently was determined to be an incremental government taking in recent court cases. Unfortunately, the interpretation and implementation of the ESA has instilled a fear and resentment in law-abiding citizens from ever participating in the ESA.

The endangered species are now seen by most private property owners as a burden on them, when they should be actually celebrating the fact that there is an endangered species there.

Now, Aldo Leopold, an environmental philosopher, once said, and I'll quote: "Conservation will ultimately boil down to rewarding the private landowner who can serve the public interest," end quote.

So Ladies and Gentlemen, only when protection of private property rights does not conflict with environmental protection will we have the best guarantee of environmental protection. After all, who can be expected to be a better steward of the land than he or she who owns it, and if the Endangered Species Act are valuable because—or the endangered species are valuable because they are rare, they should be viewed as an asset for a landowner, not a liability. Yet that unfortunately is the case we have today.

The ESA needs to be reformed in a way that will force the Fish and Wildlife Service to work with the private landowner instead of bullying them. When a Fish and Wildlife agent shows up at the door of a citizen's farm or ranch or other property, they should be holding a check instead of a gun. We should be compensating the landowners for their remarkable stewardship, not punishing them. There are many aspects of this intrusive law yet to be scrutinized, but I will end my comments with simply saying this: By reducing the amount of federal land use control, people will be able to manage their land for the good of the species without worrying that the Feds will come in and mandate that all activity must cease on their property.

So again, Mr. Chairman, I want to thank you for inviting me here today. I look forward to hearing testimony of the panel, and I look forward to working with you and Mr. Blunt on this very important issue. Thank you.

[Representative Gibbon's statement may be found in the appendix.]

Chairman GRAVES. Thank you. All the statements of the witnesses and the Members will be placed in the record in their entirety, just so everybody knows. We've got two panels today. We're going to start with the first panel, and then we will seat the second panel after they are finished. We will do the first panel, then have questions, and I'd ask that you try to limit your opening statements to five minutes, if you can.

We're going to start out with Rose Hargrave, and Rose is representing the U.S. Army Corps of Engineers today, and she's representing specifically the Civil Works and Management Chief of the Missouri Water Basin Water Management; is that correct? Did I get that right?

Ms. HARGRAVE. That's correct.

Chairman GRAVES. A long-winded title, but I appreciate you being here today and I look forward to your testimony.

**STATEMENT OF ROSEMARY HARGRAVE, PROJECT MANAGER, MISSOURI RIVER MANAGEMENT ANNUAL REVIEW AND UPDATE**

Ms. HARGRAVE. Mr. Chairman and Members of the Subcommittee, I'm here today, Gentlemen, to testify on behalf of Lawrence Cieslik, who is our Director of Civil Works for the Missouri River and Chief of Missouri River Basin and Water Management.

My name is Rosemary Hargrave, and I'm the Project Manager for the Missouri River Master Manual Review and Update. I'm honored to be here today to testify on behalf of the Endangered Species Act's impact on small business and farmers.

The Missouri River Mainstem Reservoir System consists of six dam and reservoir projects. These projects were constructed and are operated and maintained by the Corps of Engineers on the Missouri River. They're operated for the Congressionally-authorized purposes of flood control, navigation, irrigation, hydropower, water supply, water quality, recreation, and fish and wildlife habitat. To achieve these multiple benefits, the projects are operated as an integrated system.

The Missouri River Master Water Control Manual was first published in 1960 and subsequently revised during the 1970s. It presents the water control and operational objectives for the integrated operation of the Missouri River Mainstem Reservoir System. In 1989 the Corps reinitiated a review of the Master Manual in consideration of other laws and regulations, including the Endangered Species Act, the National Environmental Policy Act, and the President's Council on Environmental Quality Regulations pursuant to NEPA.

In accordance with the Endangered Species Act, the Corps must ensure in consultation with the U.S. Fish and Wildlife Service that any action carried out by the Corps is not likely to jeopardize the continued existence of any federally-listed threatened or endangered species or result in the destruction or adverse modification of their critical habitats.

The species of interest in regard to these projects are the pallid sturgeon, which is endangered, the interior least tern, which is endangered, and the piping plover, which is threatened.

The Corps entered into formal consultation with the U.S. Fish and Wildlife Service which culminated in a U.S. Fish and Wildlife Service Missouri River Biological Opinion issued in November of 2000. The 2000 BIOP concluded that the Corps' proposed action jeopardized the continued existence of the listed pallid sturgeon, piping plover, and interior least tern, and the U.S. Fish and Wildlife Service recommended a reasonable and prudent alternative to avoid jeopardy.

On November 3rd, 2003, the Corps requested reinitiation of formal consultation. The request for reinitiation was based on the existence of new information regarding the effects of Mainstem reservoir operations on the species, as well as the new critical habitat designation for one of the listed species.

The Corps' description of this information and of the proposed action was set forth in a detailed biological assessment which accompanied the request to reinitiate the consultation.

On December 16th, 2003, and in response to the Corps' request for the reinitiation of consultation, the Service issued an amendment to its 2000 BIOP. The 2003 amended BIOP includes a reasonable and prudent alternative for the Corps' proposed operations that according to the Fish and Wildlife Service, if implemented, would avoid jeopardizing the continued existence of the endangered pallid sturgeon.

The reasonable and prudent alternative recommends operations that were not proposed in the Corps' biological assessment. The RPA presented in the 2000 amended BIOP calls for a low summer release from the Mainstem Reservoir System and includes the provision that this low summer release may be modified in consultation with the U.S. Fish and Wildlife Service if 1,200 acres of shallow water habitat for the endangered pallid sturgeon are constructed in the river reaches between Sioux City, Iowa, and Omaha, Nebraska.

The Corps is currently working with the Fish and Wildlife Service to determine if plans for near-term shallow water habitat are sufficient to meet the intent of the 2003 amended BIOP, therefore allowing the Corps to operate for all Congressionally-authorized purposes this year. The 2003 amended BIOP also called for a spring rise but allows a two-year study to determine if the magnitude along with the frequency and duration of that spring rise will ensure the continued existence of the pallid sturgeon.

Thank you for providing me the opportunity to present this testimony to you, and that concludes my testimony, and I'll take any questions later.

Chairman GRAVES. Okay. We will go through all of them first and then take questions. Thank you very much.

Dale Hall is with us today, and Dale is the Regional Director of the U.S. Fish and Wildlife Service. I appreciate you being here, and I look forward to your testimony.

## STATEMENT OF DALE HALL, REGIONAL DIRECTOR, U.S. FISH AND WILDLIFE SERVICE

Mr. HALL. Mr. Chairman and Members of the Subcommittee, I thank you for the opportunity to provide testimony regarding the U.S. Fish and Wildlife Service's recent amendment to our 2000 biological opinion on the Army Corps of Engineers' operation of the Missouri River. I am Dale Hall, Director of the Service's Southwest Region headquartered in Albuquerque, New Mexico.

The Service is the primary federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continued benefit of the American people. Part of this responsibility includes implementing the Endangered Species Act. Under Section 7 of the Endangered Species Act, fed-

eral agencies must, in consultation with the Service, ensure that activities they authorize, fund or carry out are not likely to jeopardize the existence of an endangered or threatened species, nor result in the adverse modification of critical habitat. In cases where the service determines that the proposed action will jeopardize the species, it must issue a biological opinion offering reasonable and prudent alternatives that provide suggested modifications to the project to avoid jeopardy to the species.

In 2000 the Service provided the Corps with a biological opinion on the operation of the dams on the Missouri River. That opinion determined that the Corps' proposed operations would jeopardize the existence of three listed species: The threatened piping plover and the endangered interior least tern and pallid sturgeon. The Service's 2000 biological opinion provided the Corps with RPAs that would avoid jeopardy to those species.

In 2003 the Corps requested to reinitiate consultation based on new mortality data for terns and plovers, designation of critical habitat for plovers in 2002, and new information regarding flow enhancement. Specifically, the Corps proposed to remove the requirements for a spring rise and low summer flows from Gavin's Point Dam.

A team of Service experts, along with two technical experts from the U.S. Geological Survey, reviewed the most recent scientific data and signed an amended biological opinion on December 16, 2003.

In reviewing the most recent scientific information, the team determined that the status of both piping plovers and interior least terns on the river has been improving in recent years. Piping plover numbers have increased by 460 percent within the Missouri River basin since 1997, and pair counts now exceed the recovery goals. The number of adult least terns has increased since the 2000 biological opinion, and the current estimate of more than 12,000 interior least terns nationwide exceeds the goal of 7,000, although the goal of 2,100 terns for the Missouri River itself has not been met.

The status of the pallid sturgeon, however, has not improved, and the species continues to be of significant concern to Service biologists. Over the next two years, the Corps has the opportunity to evaluate several measures that are expected to benefit the sturgeon in particular, including the feasibility of a temperature control device at Ft. Peck.

After reviewing the recent data, the team accepted many elements of the Corps' proposal and developed an amended opinion that retains the vast majority of the measures included in the 2000 biological opinion but incorporates the Corps-proposed performance-based approach. This approach gives the Corps greater flexibility to manage the river while providing equal or greater conservation benefits to piping plover, interior least tern, and pallid sturgeon. The team concurred that the Corps' proposed approach would continue to avoid jeopardy to the piping plover and least tern but could not concur that jeopardy would be avoided for the pallid sturgeon.

The amended biological opinion includes an aggressive watershed approach, habitat creation and restoration, test rises along the river, and an adaptive management and monitoring program. The

opinion includes specific measures to address spawning cues and habitat improvement for sturgeon. This comprehensive approach builds on measures endorsed by the National Academy of Science when it conducted its review of the Missouri River science in 2000.

During the consultation process, the Service worked with the Corps to develop RPAs, Reasonable Prudent Alternatives, that are consistent with the intended purpose of the Corps' action and are economically and technically feasible but yet would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.

Specifically, the 2003 amendment to the 2000 biological opinion accepts several Corps substitutions to the 2000 reasonable prudent alternatives that will, in our opinion, continue to avoid jeopardy for the piping plover and interior least tern. In addition, the new RPA elements were identified to avoid jeopardy for the pallid sturgeon. These RPAs direct the Corps to construct sandbar habitat in the manner that will benefit the needs of piping plovers and interior least terns; before 2006 complete studies to determine the appropriate flow out of Gavin's Point Dam to achieve a bimodal spring spawning cue pulse and summer habitat flow, impediments to achieving this flow regime and mitigation measures for these impediments, for the 2004 annual operating period, implement a summer habitat flow at or below 25,000 cubic feet per second out of Gavin's Point Dam during the month of July or otherwise provide a sufficient shallow water habitat for the pallid sturgeon and implement the amendment's flow management plan, which includes two spring spawning cue pulses and a summer flow; and if the Corps is unable to develop a flow management plan by 2006, then there is a prescription for a spring rise, a second spring rise of 40,000 cfs.

Since the issuance of the amended biological opinion, the Service has met with the Corps numerous times to answer questions regarding the opinion and to assist the Corps in implementing the opinion's RPAs. Within the framework of the amended biological opinion, these RPAs provide considerable flexibility to the Corps regarding how and where specific measures are undertaken, including opportunities to develop appropriate management steps before prescribed measures would be required in 2006.

We are also currently working with the Corps to determine if plans for near-term shallow water habitat are sufficient to meet the intent of the amended biological opinion, therefore allowing the Corps to operate for all Congressionally-authorized programs this summer. Consequently, we expect to continue to work closely with the Corps through the 2004 operation and as they implement the opinion in the future.

In sum, the service conducted a thorough review of all the information available since the 2000 biological opinion and determined that the Corps' proposed operations would jeopardize the continued existence of the pallid sturgeon. The Service has concurred with many RPA element substitutions offered by the Corps and recommended several others to avoid jeopardy to the piping plovers, interior least terns and pallid sturgeon that should allow the Corps

and stakeholders along the river flexibility to implement the amended biological opinion.

Mr. Chairman, this concludes my prepared statement. I would also like to recognize that I have Charles Scott, a field supervisor for the Missouri operations office, here with me as well. We will be happy to answer questions at the appropriate time.

[Mr. Hall's statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Hall. Next we have Mike Wells, who is the Chief of Water Resources with the Missouri Department of Natural Resources. I appreciate you being here.

**STATEMENT OF MIKE WELLS, CHIEF OF WATER RESOURCES, MISSOURI DEPARTMENT OF NATURAL RESOURCES**

Mr. WELLS. Thank you. Good morning, Mr. Chairman.

Again, my name is Mike Wells. I am Chief of Water Resources for the State of Missouri. I'd like to thank Congressman Graves for having this hearing today and for inviting me to give testimony on this very important issue. My position is located within the Missouri Department of Natural Resources, which is the agency that has statutory responsibility for the state's water resources. I represent the state in all interstate water issues.

Let me begin by saying that the State of Missouri is truly concerned about protecting endangered species and natural habitat along our rivers. In fact, we were one of the earliest proponents for increasing funding for habitat restoration projects along the Missouri,a position we continue to support. We simply take issue with some of the ways that the Endangered Species Act is being applied to the management of the Missouri River. We strongly believe that there are common-sense ways to protect the species without harming citizens who rely upon the Missouri River for their many uses.

The Missouri River is a vital resource to the state of Missouri, providing drinking water to over two million of our citizens, cooling water for our utilities, water to support navigation, unique recreational opportunities, and valuable fish and wildlife habitat. We are concerned that changes in the management of the Missouri River, that some have characterized as necessary to comply with the Endangered Species Act, would be adverse to many of these uses.

In December 2003 the U.S. Fish and Wildlife Service released an amended biological opinion that included very specific summer low flows of 25,000 cubic feet per second below Gavin's Point Dam on the Missouri River, purportedly to protect three threatened and endangered species. The reduced summer flow required in this opinion will eliminate navigation as a viable transportation mode, thereby eliminating jobs of those depending upon the river commerce for their livelihoods and increasing costs to farmers. These summer low flows will also increase the costs to Missourians for electricity and drinking water.

Under the auspices of protecting endangered species, flows were restricted to levels that resulted in record low summer flows the past two years. In the spring of 2002, in an attempt to conserve water in the midst of a drought, the U.S. Army Corps of Engineers elected to only release the minimum amount of water necessary to support navigation. As tributary inflows began to decrease, it be-

came apparent in early July that releases from Gavin's Point Dam would need to be increased in order to support navigation. It was at that time that the U.S. Fish and Wildlife Service reversed course and decided not to allow piping plovers and interior least terns to be moved, a practice that had been successfully utilized in the past.

Because of this, the Corps was prevented from increasing releases above 25,500 cubic feet per second to meet the needs of downstream users. By July 5th flows were so low that navigation on the Missouri River was halted. During this period of time, the Missouri River had the lowest recorded summer low flows since the Missouri River reservoir system was put in operation in the 1950s.

The following impacts were felt by Missourians due to the summer low flows that year: Transportation costs for farmers and others were increased because navigation was not supported on the Missouri River for almost two months; water levels at Kansas City were 1.5 feet below the minimum needed to support navigation; river temperatures exceeded the state water quality standards for eight days; drinking water facilities, including Kansas City and St. Louis, had taste and odor problems and additional pumping andtreatment costs; power plants that use the river for cooling had generating capacity reduced; River Barge Excursions, Inc., canceled a riverboat trip from St. Louis to Sioux City, Iowa, due to low flows; river contracts with vendors along the river had to be canceled, impacting local economies up and down the river. The company estimated it lost $1 million.

Again, in the summer of 2003, a court order requiring the Corps to comply with the Service's controversial November 2000 biological opinion caused releases to a minimum of 25,000 cubic feet per second during the months of July and August and at one point for three days in mid-August reduced all the way to 21,000 cubic feet per second.

As a result, again new record-low flows for the summer months were established in this period. Due to the summer low flows, navigation was not supported for approximately 40 days, drinking water utilities again experienced taste and odor problems, and increased treatment and pumping costs, problems throughout the river system.

Not only does reduced flows impact Missouri River uses, it can also impact the Mississippi as we saw in 2003 when the low flows on the Missouri River contributed to barge groundings and suspension of navigation on the Mississippi River near St. Louis. At the same time the low water trough from the Missouri River reached the Mississippi River, navigators began to experience groundings and the U.S. Coast Guard closed the Mississippi River to navigation for several days. At that time the Missouri River was supplying almost 60 percent of the flow to the Mississippi River at St. Louis.

Despite the economic harm inflicted on Missourians in the past two years, the summer low water flows mandated by the Service's recent biological opinion for the next two years are virtually identical to those we experienced in 2002 and 2003.

In addition to summer low flows, the opinion also mandates a man-made spring rise of up to 20,000 cubic feet per second to as much as 40,000 cubic feet per second that would put Missouri com-

munities and river-bottom farmers at greater risk of flooding. The Missouri River is free-flowing for over 800 miles below Gavin's Point Dam to the confluence of the Mississippi River with over 550 of these miles being within the state of Missouri. Water released from Gavin's Point Dam can take from 10 to 12 days to travel this distance. Even with low river stages, an increase in releases from Gavin's Point Dam can increase the river flows in the state of Missouri. As you know, springtime can be very wet in Missouri, and the Missouri River is prone to sudden rises. Once water is released from Gavin's Point Dam, it cannot be retrieved.

In May of 2002 the conditions on the lower Missouri River would have been ideal for what we call a man-made spring rise. In other words, the river stages were low. In mid-May, the Missouri River rose over 17 feet in less than three days at Boonville. If an additional 20,000 cubic feet per second of water had been released from Gavin's Point Dam, the spring rise as prescribed by the Service's opinion would have reached Boonville at the same time as the flood peak, adding an additional 1.3 feet to the flood height.

An examination of historical flow data at Boonville shows that for the April through July period each year, over 75 percent of the time we exceed flood stage during that period of time. This shows that Missouri already experiences a spring rise in most years without additional water being released out of Gavin's Point Dam.

Our greatest concern is that the Endangered Species Act is once again being administered in a very prescriptive manner. The Service has mandated actions based on questionable science with little or no regard for the significant adverse environmental and economic consequences of this action. The Service is mandating actions with disregard for the many other uses of the resource.

The Service's actions are based on a dated analysis of less than 30 river miles that have changed significantly since last surveyed and are likely not representative of the river as a whole.

As another example of poor scientific reasoning behind the Service's opinion, the Service has promoted the summer low flow on the Missouri River as mimicking the natural hydrograph. Yet the low flow period the Service is mandating in the month of July was actually the second highest month under the natural river condition. With a mean flow of about 54,000 cubic foot per second, this is twice what is being prescribed by the Service.

Limiting the flows to 25,000 cubic feet per second during July would provide less than one half of the natural hydrograph immediately below Gavin's Point Dam with no clear benefit but causing obvious pain to those who depend on the river.

The Missouri Department of Natural Resources and Conservation have championed a summer flow regime that we believe will benefit the fish and wildlife of the Missouri River while supporting all the other uses. This plan suppresses evacuation of excess water when possible during August and September when flows were historically low. It proposes providing a flow of 41,000 cubic feet per second at Kansas City in six out of ten years. This flow level supports full-service navigation and is adequate to support water supply and power plant cooling. We believe that this is a commonsense plan that provides additional habitat for the species while protecting the other uses of the river.

The recent National Academy of Science report suggests that we seek ''low hanging fruit'' by focusing habitat development on the lower Missouri River where we already have a plan that allows habitat to develop and take advantage of this situation.

In the recent opinion the summer low flows are used to create shallow water habitat for the species. However, physical habitat restoration projects can be accomplished that take advantage of existing flows, thereby making drastic flow changes unnecessary. In the areas of the Missouri River where physical habitat improvements have been made, shallow water habitat is available across a wide range of flows. We just visited with the U.S. Geological Survey recently to look at some of the data on it. This means that flows that are beneficial for drinking water supply, power generation, and navigation can also meet the habitat needs of endangered species.

Let me reiterate that the State of Missouri is truly concerned about protecting endangered species and natural habitat along our rivers, but we believe that there are common-sense ways to protect the species without harming our citizens who rely on the Missouri River for all other beneficial uses.

Again, thank you for the opportunity to testify before this Committee. I would be glad to answer any questions.

[Mr. Wells' statement may be found in the appendix]

Chairman GRAVES. Thank you, Mr. Wells. We will next hear from Kevin Keith, who is the Chief Engineer for the Missouri Department of Transportation. I appreciate you being here. I look forward to your testimony.

**STATEMENT OF KEVIN KEITH, CHIEF ENGINEER, MISSOURI DEPARTMENT OF TRANSPORTATION**

Mr. KEITH. Mr. Chairman, thank you. I am Kevin Keith, Chief Engineer for the Missouri Department of Transportation. I'm going to give you a little different perspective on this issue. I'm not a scientist, I'm not an environmental expert, and as such, it's not my place to talk about the environmental impact of reduced flow on the Missouri River. I really don't know whether changing the river's flow will help or hurt endangered species. I do know that lower flows on the Missouri River will essentially extinct transportation as it is.

The Missouri River is controlled by a series of dams that form several pools for the intended purposes of flood control and navigation as mandated by Congress more than 50 years ago. The U.S. Army Corps of Engineers manages flows in the Missouri River through the operation of six large reservoirs located on the main stem of the river.

Approximately half of Missourians get their drinking water from the Missouri River. The system is designed to provide downstream flows to support an eight-month navigation season on the Missouri River which runs from April 1 to December 1. Under normal conditions, flows are released from Gavin's Point Dam in South Dakota to support a nine-foot-deep navigation channel.

The benefits of supporting navigation go far beyond the navigation industry itself. If flows are adequate to support navigation, then all other downstream users have ample water to meet their

needs. Downstream interests have built infrastructure and made business decisions based on the system providing reliable flows throughout the year, especially during periods of water shortages. The Missouri River system is designed to hold water in reserve for release during droughts.

Under the authority of the Endangered Species Act, the U.S. Fish and Wildlife Service has mandated that releases from Gavin's Point Dam be limited to 25,000 cubic feet per second from mid-June until the end of August each year starting in 2004. This will not support navigation on the Missouri River.

To better understand the effect of this decision, one needs to understand how the navigators operate on the Missouri River. When the navigation season opens in April, loaded barges move up the river to their destination. This begins a cycle of loaded barges moving up and down the river until they move off the river in late November or December. Only a few specialized barges, such as asphalt carriers, move empty on the river. Most carry one load up the river, off-load, and pick up a new load for the return trip.

Few businesses could survive economically if allowed to only work eight months of the year, which is what we have now on the Missouri River. Now the Fish and Wildlife Service is asking the barge industry to pull off the river for an additional two months each year. Adding to the burden, these two months fall in the middle of the industry's busiest season and impact our ability to move our agricultural products, which is probably the most important navigational element on the river.

If the Fish and Wildlife Service is allowed to mandate flows lower than what is needed to reliably operate on the Missouri River, then one of the Congressionally-authorized purposes, navigation, has been eliminated from the Missouri River. No question about that.

As I said earlier, I'm not a scientist. I know transportation. I am the Chief Engineer of the Missouri Department of Transportation. It is my job to give Missourians the best transportation system I can.

I know that transportation has an enormous impact on our state's economy; whether it's airborne or waterborne transportation, roadway or rail, it affects every Missourian's quality of life every day. Here are what I see as the economic impacts of reduced water flows on our river.

Higher transportation costs will be passed on to consumers. Inland waterway transportation provides competitive shipping rates, keeping truck and rail costs low.

Interruptions in the navigation during peak season in 2002 and 2003 caused drastic reduction in tonnage moved by barge. Two major shippers, MEMCO Barge and Blaske, have already decided not to ship on the Missouri River in 2004. They did not feel confident they could predict transportation costs.

Facilities are no longer investing in capital improvements at docks but instead are looking at adding investments to facilitate the use of other modes. The long-range effect of this shift will be less competitive shipping rates as rail and trucking companies no longer have to compete with the more economical barge transport.

What happens on the Missouri River affects the Mississippi River. Continued low flows on the Missouri River also affect the Mississippi, the nation's major inland navigational river. At times the Missouri River supplies as much as 60 percent of the Mississippi River flow.

The past two years have shown us how lowering the Missouri affects the Mississippi. The Mississippi River was closed just south of St. Louis for a short time because it was too low for safe navigation. The Mississippi River was closed. The bottleneck effect from the confluence of the Missouri River to the confluence of the Ohio River makes this an issue for every state that ships on the Mississippi. It costs the industry approximately $8,000 per day for each barge that is waiting for river levels to rise.

Every river barge that cannot travel on the Missouri or Mississippi Rivers results in 15 more rail cars on a rail system that is already straining at or near capacity. Every river barge that cannot travel on our great river results in 60 trucks on our aging highway system. That's one barge. On the Mississippi River, the average tow moves approximately 15 barges. The loss of one tow with its barges would put 225 rail cars or 900 trucks on our already strained alternate systems. Multiply that by the number of river trips, and you start getting a sense of the magnitude of the problem.

Here's another example from right here in St. Joseph. Recently the state invested almost a million dollars in a dock here, with a local match of $350,000 from the local community. The dock was completed in June 2002. Without doubt, the St. Joe port has the newest, and with its additional infrastructure, one of the best docks in Missouri. In its first year, 2002, almost 17,000 tons moved across the dock. During this past navigational season, the port operator had scheduled five barges to off-load at the terminal. The first arrived late due to the low flows that opened the season. The other four were never delivered. There was virtually no navigation north of Kansas City in 2003. Very little even made it to Kansas City. In 2003 that one barge, with its load of 1,165 tons, was the only freight moved across the St. Joe dock.

I know transportation. I know we need our waterborne system to become more robust. We cannot take advantage of our state's position and natural assets if our waterways cannot be used. I thank you for letting me provide this point of view.

[Mr. Keith's statement may be found in the appendix]

Chairman GRAVES. Thank you. We will now have questions, and I'll start out, and just kind of background just a little bit to give you a sense of what my district or how this river impacts my district, my district starts along the river at the Iowa, Missouri and Nebraska borders, that area up there, and it comes down through St. Joe, down through Kansas City, then cuts across the state, still on the southern side of my district, all the way over to the bridge that's going into Columbia. That's the end of my district, a tremendous amount of riverfront area. Anything happens, I hear from small businesses. This affects my district and districts that are rising and falling.

You know, any time that the river is messed with, we hear from small businesses, we hear a lot from water treatment facilities. St.

Joe has a huge impact whenever the river gets too low. Cooling for power plants is a huge issue. We need that water for cooling; and then one of the issues when the river is running too high is what's being worried about is the artificial spring rise affects interior drainage, and we've heard very little so far about interior drainage. I think we may hear a little bit later. But when the river runs high, everything backs up all the way down the river for miles inland, and you can't take your water back off. It backs up in your fields, it floods, and many people think that the bottomlands are flooded just along the Missouri River. It is every other tributary along the river that water backs up into.

I have personal experience with that working in plantings of fields, and my question is, and I guess it is probably more directed to Mr. Hall—and maybe Ms. Hargrave would like to comment—but is that taken into account whenever we look at something like this, when you put out the biological changes, you effectively change the management of the river. You force the Corps of Engineers to come up with a new Master Manual. I mean, is that taken into account or is it just about that species? Or is it just about that wildlife that is impacted? Does anyone take a look at the economic impact that this will have on individuals in the community?

Mr. HALL. Well, I think that there's probably a two-part answer to that. The first answer is that the Endangered Species Act doesn't give us a whole lot of latitude to do an economic analysis. It is strictly designed in the biology. So the first question we have to answer is whether or not a species, an action taken will jeopardize or not jeopardize a species, and once we get to that point, then we do everything we possibly can to look at what kinds of impact might occur as a result of what we're saying. But we can never cross the line to where we couldn't support the science there, the biological science that goes along with it.

In this particular case, in the spring rise that you're talking about, we did understand and accept the science is not clear on what's needed for the species. We know that in big river systems throughout the world that the species adapt to cues for the reproductive cycle, but we don't know in the Missouri River—I don't think anyone does—exactly what level that is; and for that reason we tried to build in some flexibility, and the reasonable prudent alternative for the pallid sturgeon for the spring rise says that the Corps should undertake a feasibility study over the next two years to try and determine how to meet the objectives, the biological objectives that we would all like to see done for the species and at the same time take into account the different kinds of impacts that might take place and try to address those in the process. And the biological opinion says that if that doesn't happen, then in two years, in March of 2006, then we have put in what we think is a starting point for analysis for what flow should be, and that is a 16,000 cubic feet per second rise above that spring condition and flow that would come down at roughly 40,000 cubic feet per second.

But I do want to emphasize that we neither have the expertise nor, frankly, the legal authority to do an economic analysis. We are directed to do a biological analysis, but we did try and interject as much understanding of the ramifications to other users of the river as possible. But our expertise is in the biological realm, and we've

tried to build in some ability for the Corps who has much better expertise in that area to look at that over the next two years.

Ms. HARGRAVE. From the Corps' perspective, our review, of course, is much broader than that. In addition to the environmental and biological considerations, we also have to take into account the economic impacts as well, and we've tried to analyze those impacts through the Natural Environmental Policy Act process in our environmental impact statement. So we do look broader.

Chairman GRAVES. The thing that bothers me about the statement that was made with taking a look again, you know, doing a feasibility study having these effects concerns me a great deal, and that's essentially what you're saying, isn't it?

Mr. HALL. No, for the spring rise there is no required spring rise until 2006. That's the two-year. The summer flow is a different question about habitat. But for the spring rise and the backup flooding that you're talking about, there is a two-year waiting period for the Corps to be able to look at things and come up with how working with stakeholders and others along the river can come up with a proposal to accomplish the same thing. So the spring rise doesn't start immediately.

Chairman GRAVES. Would you say the same thing about the low flow, when it is to start essentially?

Mr. HALL. Okay. The summer flow has a different rationale behind it. The summer habitat flow, first of all—Maybe what would be good here, if I could, is just highlight what I consider to be the four major differences between the 2000 opinion and the 2003 opinion.

The 2000 biological opinion required for the spring rise only to happen one out of every three years but required a 20,000 cubic feet per second increase over the navigation flows which would put it 50 to 54,000 somewhere. With this biological opinion we do recommend that it happens every year but at a lower level, after the two-year period you look at for the spring and the study is done, but we only recommended a 16,000 increase over the March condition inflows which is the flows that they put in the condition, the next step after the winter flows that the Corps is going to do anyway to buffer the man-made-prepared channels and the habitat out there.

The second difference is the summer flows. In 2000 the biological opinion found jeopardy for three species and the flows were predominantly summer flows, were predominantly for the birds. The Corps came to us—there still is shallow habitat for the fish, but the Corps proposed to do that mechanically, and we could—and we said okay, you can do that mechanically, and the summer flows were then 90 plus stage. They had to basically wait until the nesting birds were finished before they could raise them, and the 2000 opinion was at 21,000 cubic feet per second.

Since we were able to only have focus on the fish because there was no jeopardy for the birds or the jeopardy was continued to be avoided, then we looked at the information and felt that the flows could accomplish the shallow water habitat, and shallow water habitat did agree to definition, is habitat that is five feet or less in depth and has two and a half cubic feet per second of flow rates.

So you are basically talking about the side channel types of habitat, and because of the way the river has been modified and constrained movement of water for other purposes one would expect to happen on a project, a lot of the historic shelter habitat has been made unavailable, and the Corps proposed to create physically the 1,200 acres that are at Sioux City between Sioux City, and the Platte, and we agreed that that should be done.

But there's a really dire circumstance here right now for the species.We have only a few hundred fish left in the river that are what we call heritage fish, the fish that are—that have spawned in the past and have been there. The scientists that look at this fish tell us that they will become reproductively senile or die within the next ten to 12, 14 years. I think the prediction was by 2018, they would be gone. These are long-lived fish but they're reaching that point, and when you have a low number of fish and then you also have a spawning frequency that is only every three to five years for a female, then the possibilities of hanging on to those fish get less and less.

So the shallow water habitat is very important on an annual basis so that every chance for the young to live—and they are not living. We have every scientific evidence that the larvae, the document spawning, we found the larval fish at the earliest stages but we don't find any kind of recruitment; we don't find them to be living or to be recruiting in the population, and the science leaves us to believe that's because they don't have a nursery habitat.

The Missouri River below Gavin's Point is very much like an hourglass from a biological perspective. When you get below Gavin's Point, there's some pretty good habitat for the fish. So if you look at the hourglass coming down, there's pretty good habitat there, nursery habitat, good kinds of quality. But then you get down to Sioux City, and between Sioux City and the mouth of the Platte, it constricts and becomes more of a channel process, and then after the mouth of the Platte, it opens up again and there's some pretty good habitat down below there.

But the science leads us to believe that any fish that are being spawned between Gavin's Point and the mouth—and excuse me, Sioux City, that the flows coming out are sort of blowing them on through.

You have to understand a larval fish is probably three to five, seven millimeters in length, has no swimming ability, it's basically drifting. Nature has allowed it to impasse. It's evolved to where the eggs are laid, the larvae are then drifted over into these nursery habitats, which one would expect to happen, and those are not there now.

So the reason for the shallow water habitat to continue in the summer at 25,000—and it's not through the summer, they run it down for seven days to July 1st, 30 days at 25,000, and then up for seven to get back to the normal level, whatever the Corps wants to operate it at—is to try and give those fish a chance where the shallow water habitat is today.

Now, the opinion says that if you create the new shallow water habitat—and the Corps is working on that—then that's what we're after. The flow is not the big issue in the summer. We're after shallow water habitat. We're after what's good for the fish. So when the

habitat is created and if they need higher flows to reach that habitat, then that's fine, and I think that's what the Corps is working toward.

But we are, frankly, in a pretty serious situation with the fish, and I'll reiterate the lower numbers of adults, the spawning frequency is three to five years, and we have not been able to document any kind of recruitment, and the literature simply leads us to believe that there have not been recruitments.

Those are two of the four.The third one is that there's a strong stakeholder process involved in the Corps' proposal that we really like. They proposed a Missouri River recovery position Committee, and we think that's the way things should work, to get all of the interests along the river to sit down at a table together to talk about how to approach this particular issue where everyone can be heard and everyone can be listened to. It's just as important that people be listened to as someone being able to speak, and so we think that this is a real important process that the Corps has proposed to be part of this, and the difference between the 2000 and 2003 period is the administration's commitment.

In 2000 there was basically no commitment from the Administration to move forward and try to solve this problem. This Administration—and I'm first, let me say I'm a career employee, I'm not a political appointee; I'll just say this as a fact—This Administration has throughout 2004 appropriations and throughout the President's 2005 budget request—if you add those two together, is trying to bring a hundred million dollars into this basin to try and help work with this problem to fix it and have people have the resources to be able to come up with solutions.

And I think those are the four big differences, and I hope I haven't gone too long in answering your question about the shallow water habitat or put too much in there, but that's—we just feel like if we give every opportunity to these fish, since we're not seeing any recruitment, is a very serious issue.

Chairman GRAVES. I don't want to dominate all the questions. I'm going to turn to Representative Blunt, but I will say I have a real problem with the statement that you—one of the statements you made when you said we're after what's good for the fish. That red flags super quick to me, and I know it's not necessarily you, it's the philosophy with the Fish and Wildlife Service, but that did bother me a great deal

Mr. HALL. I guess I'm not sure that—what I was trying to say is that the law requires us to take an approach—we can work with the public, and we do, and we want to—just as Mr. Gibbons commented a while ago, we have instituted private lands programs because we agree the plight of the landowners is the source for real implementation of the Endangered Species Act.

But what I was trying to say and possibly didn't say it very well is that the law only gives us certain latitudes, but the first test of anything we do, we must pass, is that the species is—that the action will not lead to jeopardy of the species. We don't have any choice there. That's the first question that we have to answer, and anything that we do after that has to always stay above that bar, and we don't have any legal authority to do anything different or we would be in violation of the law itself.

Chairman GRAVES. Representative?

Mr. BLUNT. I'll try to ask a brief question and maybe get brief answers, not that your answer, Mr. Hall, didn't require a long time, but it certainly took a long time.

One, did I understand you right, Mr. Hall, that you're satisfied with the Corps' proposal that affects the two birds?

Mr. HALL. Yes, sir.

Mr. BLUNT. So literally this gets down to what are we going to do about the pallid sturgeon?

Mr. HALL. Yes, sir.

Mr. BLUNT. That is your main concern now based on what the Corps would like to do. You have the challenge of navigation and flood control and you're concerned that this bill doesn't adequately deal with the pallid sturgeon.

Mr. HALL. Yes, sir.

Mr. BLUNT. Are you also saying that you don't have any authority to consider, once you consider that a species is in danger of extinction, you don't have any authority to consider anything else when you come up with your RAP in terms of economic impact or the drinking water problems, the power problems, the problems Mr. Wells talked about?

Mr. HALL. We don't have the authority under the ESA to have those supersede the biological ramifications.

Mr. BLUNT. I'm not blaming you for that, either. Part of what we're talking about here and part of what Mr. Gibbons and his Committee have been talking about for some time—I know Mr. Graves is supporting that, as I am—is it's time to look at the Endangered Species Act and the theory if you don't like the Act, all you've got to do is carry it out.

What you're telling us is what lead you to that decision is the species is endangered. It wouldn't really matter if Mike Wells says look, if you want to save the species and eliminate the drinking water for the people in Kansas City, Jefferson City and St. Louis, you can't consider that under the current law.

Mr. HALL. The Fish and Wildlife Service would have to say, would have to come up with whatever answer. The Corps could raise that and ask the Endangered Species Subcommittee to look at that—otherwise known as the God Squad—but we don't have an answer for that, no, sir.

Mr. BLUNT. What authority does the God Squad have?

Mr. HALL. Under the Endangered Species Act, we have a———.

Mr. BLUNT. Frankly, I never thought I'd be able to ask that question.

Mr. HALL. Under the Endangered Species Act, when a jeopardy opinion is found to which there is no reasonable and prudent alternative—and that might be one, when you have drinking water shut off, you know, the health and human safety was involved—the agency taking the action has the ability to petition the Secretary of the Interior to form what is known under the law as a danger Committee. It's historically been called a God Squad because you have to decide to let a species go extinct.

The members of the Cabinet that come together, the Secretary of the Interior oversees the Committee, and it's only happened a

couple of times, two or three times in history. But Mr. Baker, Senator Baker put in the law after the snail order issue down in Kansas City, but to come back to answering for me, the Fish and Wildlife Service does not have that kind of authority under the law, you're right.

Mr. BLUNT. Is the Missouri River today, is this the only habitat for the pallid sturgeon?

Mr. HALL. The pallid sturgeon, actually the range is throughout Missouri, through Mississippi and into the Chapel River Basin.

Mr. BLUNT. Do they have problems in all of those areas or only in Missouri?

Mr. HALL. There are different kinds of problems in each area. In Louisiana we have some problems with hibernization. Other sturgeon species in the Mississippi, we have a problem with a mixture of that, but we don't have a lot of research, other than to say it is being looked at, as to why that's happening. Most research has been done on the Missouri because of the impact that is raised over the navigation and the other issues here.

Mr. BLUNT. Are you doing anything in the Mississippi or Louisiana areas to evaluate viability of the sturgeon?

Mr. HALL. I think research is being done on what's needed.

Mr. BLUNT. You don't have any current action you're working on?

Mr. HALL. I'm not aware of any.

Mr. BLUNT. The only place to assure the pallid sturgeon survive, it's only on the Missouri? So we're down to one fish in one location?

Mr. HALL. Yes, sir, we're down to the Missouri.

Mr. BLUNT. That's what I thought.

Ms. Hargrave, do you have the 12,000 or 1,200 acres, 1,200 acres that you're suggesting would be needed to create a future potential spawning area? Does the Corps own that land? Does it control that land? Is it preparing to buy that land? Tell me just a little bit about that.

Ms. HARGRAVE. The Corps has a very aggressive habitat program. We do it through willing sellers. We don't use condemnation. What we are proposing to the Fish and Wildlife Service now is that the Corps be allowed to look beyond that Sioux City to Omaha reach. We believe that there's scientific information available, including long-term studies which would justify looking at the entire region from Sioux City to the mouth of the Osage River. The Corps could get 1,200 acres in that reach.

We've also committed to the Fish and Wildlife Service that we will focus on the Sioux City to Omaha reach. We probably can't get 1,200 this year, but by 2005, funding available, we would have 1,200 acres in place in the Sioux City to Omaha reach.

Mr. BLUNT. But you don't have it yet, but you think you could buy it?

Ms. HARGRAVE. You've got it.

Mr. BLUNT. Mr. Keith, you mentioned—you and I both will stipulate that we're not experts on these environmental issues—but you are an expert on transportation. Is it your sense that if you take the barge traffic off the river for two years, what are the odds of you getting the barge traffic back, you know, assuming this two-year period, if you think of something that allows it to continue, to have the navigation, or if you decide that that's not the problem,

what are the odds ofthe barge traffic coming back and what's the impact to the various barge facilities and ports during the two years of inactivity; what's the impact there?

Mr. KEITH. Well, I think it's two things. Two years maybe you can get barge traffic back because you still have the investment in facilities and they won't have determined whether or not they are usable or not, but this is absolutely dependent on having an eight-month navigation season that they can come back, they can come back to. Eight months on the Missouri River, quite frankly, is not the best navigation the way it's been managed in the past, so the additional low flows just simply make it economically infeasible to do transportation on it.

The bigger issue that it has to do with is whether we're going to maintain the navigation channel for eight months. If someone could say that's absolutely going to happen in two years from now, I think economically transportation would respond to that and use it, but if it stays uncertain and they go away and that certainty is not held up, they won't come back.

Mr. BLUNT. I would assume there's some time period, a relatively prudent period where they don't come back.

Mr. KEITH. Yes.

Mr. BLUNT. Mr. Wells, I drank the Missouri River water at Jefferson City, my daughter drank it for the same eight years, it didn't seem to hurt me very much. But what was the financial impact or the other impact when you had just the low water in 2002 and three in the drinking water system?

Mr. WELLS. Just an example, they had to put an auxiliary pump to go out in the river to get more water. The river flow was not much lower than what the flows were during some of the winter months but we have less demand in the winter, obviously, on the water so they had to put an additional pump in, and then you've got organic materials and stuff that causes additional treatment costs to be placed. We've had some low water this winter. There's several different reasons. Had a guy call me the other day, lived in Jefferson City. Called me and said the river is too low out here, we've got to get it up to a certain level, and I can taste it, tastes bad. Just the organic material that they have———.

Mr. BLUNT.—involved.

Mr. WELLS. Yeah. They're pulling out, and the reason is, I would say, pollution, pollution, pollution. We don't say that at DNR, but that's part of it. If you have less flow, you've got contaminants, stuff is more concentrated. We checked and Kansas City and St. Louis had an additional increased cost in pumping. Obviously when the river is low, you've got to raise more water for the additional pumping facilities, and the treatment to remove the taste and odor cost is in addition.

Mr. BLUNT. I'm like my two colleagues, I like to be outdoors, I love the outdoors. I want to do our best to take care of it. I've got a grandson in Jefferson City that uses that water, one in Kansas City that uses that water, and the truth is they're both a lot more important to me than the pallid sturgeon.

At the very least we ought to give Mr. Hall and his group the authority to consider those factors as they look at other things. Thank you.

Mr. GIBBONS. Thank you very much, Mr. Chairman.

Let me ask of Ms. Hargrave, the 1,200-acre shallow water habitat area you're talking about, is that a single body of land that you're looking at or is it a separate, can it be in smaller groups of areas along the corridor?

Ms. HARGRAVE. Right, because it's acquired from willing sellers, you know, obviously that's what it is. It's more of a patchwork wherever we can get the land and develop it along the river.

Mr. GIBBONS. So instead of a large shallow water basin area, you're not talking about 1,200 collective acres, you're talking about——

Ms. HARGRAVE. Exactly.

Mr. GIBBONS[CONTINUING]Approximately 1,200 acres spread out over this whole region.

Ms. HARGRAVE. Yes.

Mr. GIBBONS. Do you believe that that will answer the question about habitat needed to allow for recovery of the pallid sturgeon?

Ms. HARGRAVE. Just maybe a little background here, and I won't go too long. The habitat gain, the shallow water habitat gain from going from minimum service to navigation, which is what the Corps would like to revise it to because we are in a drought, to 25,000 cfs, which is what is in the biological opinion, is about 30 acres of habitat.

The 1,200 acres comes from an analysis that the Corps did in our biological assessment in November where we looked at the whole reach of the river from Sioux City, Iowa, to the mouth of the Osage River and estimated there were 1,200 acres lost due to our operation of the system. So what we are proposing and for this year, is to get 1,200 acres in that whole reach, but we also will focus on that shorter reach from Sioux City to Omaha and get 1,200 acres there by next year.

Mr. GIBBONS. Mr. Hall, what's the Fish and Wildlife's opinion of this 1,200 acres? Are you ready to approve it?

Mr. HALL. We're ready to—we're on-going working with the Corps to answer the kinds of questions that Ms. Hargrave has just brought up about looking at the entire reach of the river based on the level of drift. I mean, those are the situations that we're talking about right now.

Mr. GIBBONS. So what I hear you say is the people living in this—who are alive in this audience today may not be see the end result of this any time soon?

Mr. HALL. I don't know the answer to that.

Mr. GIBBONS. Let me ask, when you talk about scientists and the study of fish and you give reference to these scientists, are these Fish and Wildlife scientists that are giving you this information?

Mr. HALL. They are—they are a conglomerate of scientists, starting with the National Academy of Science, that have done an independent review. They have literature citations from up and down. Frankly, the Fish and Wildlife Service scientists are probably the smallest number or the most least representative.

Mr. GIBBONS. You are relying principally on outside scientific efforts to formulate your opinions?

Mr. HALL. Yes, sir.

Mr. GIBBONS. Is all of this science that you're relying on peer review?

Mr. HALL. Yes, sir.

Mr. GIBBONS. All right. Now, does the high temperature reflect the recovery of the sturgeon? The water temperature?

Mr. HALL. High temperature can end the early life stages of the fish.

Mr. GIBBONS. So when the water level is low, the high temperature part of the time is not conducive to the recovery of the endangered species?

Mr. HALL. It depends on the stage of their life development at that time. Obviously they're developing, and this habitat is five feet or less in depth. That's how they have historically developed.

Mr. GIBBONS. What about total dissolved solids?

Mr. HALL. Total dissolved solids and turbidity are both questions that may be positive or may be negative for the fish, the Big Muddy, as the river has historically been known, in that the pallid sturgeon in particular is not a site feeder or a site developer. It is developed in turbid environments. We are not ready to say it has to have it, but we certainly have questions about that.

Mr. GIBBONS. What is the Fish and Wildlife Service doing for artificially increasing the numbers here besides changing the water level? What about artificial spawning? What about taking these fish and putting them and growing them and raising them and putting them back in the river? What are you doing there?

Mr. HALL. Over the past, starting in 1994, we've devoted some of our hatchery work to doing that, and over a ten-year period we have stocked 40,000 pallid sturgeon, and they are the hope, frankly, for the future, but until they reach—and I'll point out again, they're long-lived species; the males don't even become sexually mature until seven to ten years, the females ten to 15 years. So we have not even reached the point yet—This year will be the first time we will even see that first few fish that we stocked, to find out if they will respond and spawn and become members of the wild, and that's a question that we're hopeful about but it's going to take a while to know that.

Mr. GIBBONS. Mr. Wells, briefly, do flow rates change the carrying capacity for the river, whether it's circus barge, et cetera? I know Mr. Keith talked about a nine-foot channel. Is that the depth that you're talking about or is that the width?

Mr. KEITH. Nine foot is the depth.

Mr. GIBBONS. The depth. So the minimum depth amount to float a barge, roughly?

Mr. WELLS. Actually you can go lower. The nine foot is the authorized channel. It's nine foot deep, 300 foot wide, I believe is an authorized channel; therefore what we call full-service navigation, and navigation pretty well needs that to make it an economically viable transportation mode or avenue. When we're in a drought condition like we are now, flows are reduced in the river down to an eight-foot channel which produces about a seven-and-a-half-foot draft. If you heard me say last year we were actually a foot and a half below that, so we have about a six-foot channel in certain parts of the river around Kansas City. So that's obviously not that full. You can partially load barges but barges with reduced

amounts of volume have difficulty to even operate at all. We had a couple of groundings, we had a couple of barges that were still trying to operate at the low flows. So it was very dangerous as well.

Mr. GIBBONS. The reason I ask, because as I say, I come from the state of Nevada, and the rivers out there would probably make a wet sponge. We don't get anywhere near what Missouri does, but my concern is, of course, when they also talk about carrying capacity—in other words, the water is so bad you get solids, et cetera, et cetera—and when you lower the capacity down so it puts all the water into narrower or a smaller channel, upstream it is higher; it's carried downstream which fills in your channel throughout that period of time.

What efforts or cost does a lower flow rate have on the carrying capacity of the river, simply your costs to keep the channel full?

Mr. WELLS. I'm not sure I can answer that from the standpoint—the one thing that we did recognize the summer before that, as I mentioned in my testimony where I said we are in a similar state on the river as far as temperature. When you have the lower flows, you don't have the same capacity. You have several power plants that use this water for cooling, and so what we experienced in the lower part of the river is we had eight days that we exceeded—the state water quality standards for temperature in the river, which exceeded 90 degrees. That's the state water quality standard. We know when the river water is above 90 degrees, we're having some environmental problems there.

So, in fact, we actually issued a notice of violation to the Corps of Engineers from our department in 2002 for violating the state's water policy standards for allowing the river to be that low, because we have the infrastructure already on the river and we had some cooling—some power plants that cut back their cooling water, lost their efficiency when the river was that low. So that's a real concern of ours when we get that low that we've got that problem.

Mr. GIBBONS. Mr. Chairman, I know you've got another panel and a time crunch, so I'll cut my questions short.

Chairman GRAVES. Thank you, Mr. Gibbons. Our time is running a little short, unfortunately. I wish we had all day to ask questions.

I do have one more quickly which I don't completely understand, but it seems that the Corps of Engineers and the Fish and Wildlife Service are using different sciences and coming to different conclusions and you both have to comply with the law. Am I wrong in thinking that if—go ahead.

Ms. HARGRAVE. The Corps has done our very best engineering and biological analysis of this issue, and in our biological assessment that we gave to the Service in November, we put forth what we thought was a very sound proposal for addressing the endangered species, you know, on the Missouri River. Obviously—and Dale can respond to this—the Service came back and didn't agree with or think that the Corps' actions relative to the pallid sturgeon were enough.

Mr. HALL. And I think that that's what consultation is all about is if you use consultation, and we had lots of very positive discussions. I can't say enough about how good the relationship with the Corps and the Fish and Wildlife Service professional relationship

is, our staffs with each other. But then again, there can be different opinions as to what the science says and what it doesn't say, but we don't get to dodge, we have to make a decision and give our opinion.

Chairman GRAVES. Thank you all. I appreciate it. We will briefly take just a minute and seat the second panel, and I appreciate you being here.

Chairman GRAVES. We're running just a little bit behind and we will just go ahead and get started. I know we have a couple witnesses on the second panel who are going to have to leave due to other engagements, but I appreciate everybody being here, and we're going to start right off with Mr. Blake Hurst, a farmer from northwest Missouri who also serves as the Vice President of the Missouri Farm Bureau Federation, who is going to be testifying. Thanks, Mr. Hurst.

**STATEMENT OF BLAKE HURST, FARMER, VICE PRESIDENT OF FARM BUREAU**

Mr. HURST. Mr. Chairman, thank you for conducting this morning's hearing. Your interest and leadership on the issue of endangered species reform is much appreciated. For too long Congress has ignored flaws in the Act and been unwilling to stand up to political threats from environmental organizations. We can only hope that a majority of members of Congress will soon come to understand the Act's deficiencies and support much-needed reform.

To put it bluntly, the ESA is broken and in need of major repair. The goal of the Act remains important:The preservation of endangered species. However, it has evolved into the weapon of choice for those who believe landowners cannot manage without greater regulation or a court order

Today the federal biologists have the power to impose prescriptive management plans and extort money from Congress without regard to those who actually own or make their living on the land. While we believe it is possible to focus on increasing the population of threatened and endangered species without prescriptive management edicts and the associated economic impacts, this view is not shared by the U.S. Fish and Wildlife Service.

In Missouri we have firsthand experience with species listed as threatened and endangered by the federal government. In recent years we have dealt with the Topeka shiner, the Indiana bat, the piping plover, the interior least tern, and the pallid sturgeon. In each case, there was no attempt to work with landowners prior to listing. In the case of the Indiana bat, federal permits to remove a log jam were delayed, not because the species populated the area, but rather because the bat might someday decide to come into the area.

Management of the Missouri River is a good example of how the Endangered Species Act can be abused. What started with a drought in the upper basin has evolved into a 14-year water war encompassing state agencies, federal courtrooms, Congress and even the White House. While you are very familiar with this issue, suffice it to say, the Missouri Farm Bureau and many other organizations are profoundly disappointed with the biological opinion issued recently by the U.S. Fish and Wildlife Service. If landowner-

ship means control over use of the land, it may very well be that the largest landowner in the state of Missouri is the pallid sturgeon. Perhaps we should tell the county collector so the property taxes can be sent to the right place.

The proposed Master Manual is scheduled to be released later this week, and it appears the Missouri landowners will get to experience aspring pulse, which could also be called a prescribed flood; low summer flows, which exacerbate reliability problems for navigators; adaptive management, which is a license to experiment on private property; and countless acres of mitigation, otherwise known as land acquisition.

Make no mistake, these measures will come at the expense offarmers who will be subjected to greater risk of flooding, lower prices for their grain and higher fertilizer costs;municipalities that will be forced to extend intakes to provide public drinking water; utilities that rely on flows to cool water used for power generation; the environment as shipments are moved off the river to truck and rail; and Missouri River flows which are at times dependent upon flows from the Missouri River.

In the end consumers will likely pay more for water and electricity. Farmers will pay more for fertilizer and receive less for their grain. And everybody will be subjected to a greater risk of flooding, and public agencies will use taxpayer dollars to add to their already huge inventory of public property.

The U.S. Fish and Wildlife Service is using the Endangered Species Act to prescribe these measures for the pallid sturgeon. "adaptive management" is the term used to describe the process under which the Missouri River will now be managed. "experiment" is a fitting definition of adaptive management as biologists are given carte blanche authority to use private land along the Missouri River as a laboratory. At this point there is no way of knowing if any of these prescriptive measures will work. The prevailing attitude is, "Let's just give it a try, and if it doesn't work, we will try something else."

Mr. Chairman, there are many ways in which the Endangered Species Act can be improved, and I offer the following suggestions:

The U.S. Fish and Wildlife Service should concentrate on working with landowners prior to a proposed listing. Missouri's 1/10th cent soils and park tax has been successful because of its focus on voluntary, incentive-based conservation practices. Working with landowners when a species is in decline provides opportunities for actions that could prevent the need for a listing.

The economic impacts associated with a listing must be taken into account prior to the designation of critical habitat. It is very important that all parties understand the economic impacts associated with both a listing and subsequent biological opinion.

There must be increased transparency throughout the jeopardy process. Currently there is little public oversight or review of the management requirements issued by the U.S. Fish and Wildlife Service.

There must be new checks that prevent species management by judicial mandate. While the ability to seek judicial review is important, shopping for a sympathetic judge must stop.

The entire concept of adaptive management must be reviewed. Changes are warranted that prevent private lands from becoming laboratories subject to moving goalposts set by biologists devoid of common sense.

Prescribed management practices must focus first on publicly-owned land. Expansion beyond land in public ownership should only occur when it is deemed essential to the preservation of a species.

Land acquisition must be tied directly to the preservation of an endangered species. The Act must not be used as an excuse for acquiring large parcels of land to add already vast federal inventory.

In conclusion, we commend your efforts to call attention to the ESA's impact on farmers and small businesses. As a farmer yourself, you understand the effects that biological experiments will have on the people who farm and live along the Missouri. They're your neighbors and they most certainly didn't ask to be guinea pigs in an experiment designed a long ways from the floodplain, by a scientist whose salary is guaranteed no matter how that experiment turns out.

Deficiencies in the Act must be addressed to create a climate under which landowners are viewed as the solution and not the problem. While cooperation is the key, litigation has become the tool of choice. Perhaps Senator Bond put it best when he said those involved need some adult supervision.

Thank you, Mr. Chairman.

[Mr. Hurst's statement may be found in the appendix.]

Chairman GRAVES. Mr. Hurst, do you have to leave?

Mr. HURST. Yes.

Chairman GRAVES. Does anybody have any questions for him before he leaves?

Mr. BLUNT. Blake, thanks for being here today. I just want to say I think particularly the points you made in re-looking at this Act are valid points; the fact that this Act was written in a way that you can't consider the economical impact, as you pointed out. Also, what are your concerns just—talk a little bit more about your concerns about excessive land acquisition.

Mr. HURST. I think that sometimes the Endangered Species Act is sort of a wedge—at home we call it pry bar—that the federal government uses to expand their inventories of land, and I thought it was interesting that the first panel mentioned that well, the flow didn't matter so much as long as we have enough land available. In other words, it's obvious to me that there was a compromise available, and the only thing, the only reason for that compromise, I guess, is farmers along the river that kind of enjoy what they're doing and want to keep doing it.

Mr. BLUNT. What impact do you see with the levee system in what you refer to, I think appropriately, as a prescribed flood?

Mr. HURST. Obviously there's pressure on the levees when the water is high, and again, the points made earlier this morning about a ten-day trip from when the water is released into the river and when it gets to St. Louis is very apt. We can have tremendous floods come through Missouri in the spring that raises the river, and all the other associated process, and one of the other things that concern—you talk about levee systems—one of the other

things that concerns us about federal acquisition of land along the bottom is that levee districts are a cooperative effort, and one of the largest owners in the levee district is the federal government, and their interests are exact opposite of the farmers involved in that levee district. Then you have some conflict that's inevitable.

Mr. BLUNT. I maybe should have asked this question of Ms. Hargrave, but I wonder if the idea of adding the 1,200 acres, if that involves any breaching of the current levee system and appropriate accommodation for that. Would you mind, Mr. Chairman, if she just answers that?

Ms. HARGRAVE. Right, I don't believe that we're looking at any—in terms of the federal levee system—that we are involving any impact to the federal levee system. I will say this: One of the things that we are looking at is widening the river and substantially setting back some levees. Now, that will absolutely have to be done in conjunction with the property owners and in conjunction with the levee districts.

Mr. BLUNT. That was part of the entire plan to acquire the land. You wouldn't assume there would be any burden on the neighboring landowners when you did that?

Ms. HARGRAVE. Oh, I don't think there's any doubt that if we acquire a lot of land, there is going to be an impact on the tax base of those levee districts. I mean, there's no question.

Mr. GIBBONS. Mr. Hurst, you obviously seems to be a gentleman of impeccable common sense. Perhaps we need to have more like you in control of some of the decisions that are made with regard to these issues.

My question is, and just I almost know the answer and I think the public knows the answer to this question, but do you think the farmer or rancher or property owner along the river would be better off in controlling the lands with the help of the government rather than giving it up to the government to control?

Mr. HURST. Well, I'm kind of happy to live in my small community that's dependent on farmers shopping there. We farm along the Missouri River or one of the tributaries, and I like my life and I'd like to maintain it; and what happens, it's always—whenever government talks about adding more land to the inventory, it's always from willing sellers. But folks who might not have been willing 20 years ago are now faced with a prescribed spring flood, they're faced with higher prices for their fertilizer because navigation's stopped, they are facing more danger if they happen to live in the bottom. So what might not have been a willing seller 20 years ago may be today, and if these rules get more in favor of the wildlife and less in favor of the farmers, then these people who today are not willing to sell may be willing to sell and in 20 more years. So that willing sell always kind of gives me the willies sometimes.

Mr. GIBBONS. If you want to see a real challenge when you talk about federally-owned, federally-managed property in the state, you should come to Nevada. Nevada has 89 percent of its geographical area that is owned and managed by the federal government. Running a state on 11 percent private property, you will understand the impact on any private property about the Endangered Species Act. Thank you for coming.

Chairman GRAVES. I have one question, and I'm going to ask this of all the panel, too, but just real quick, how does it feel to have the needs or life of the pallid sturgeon fish over your own?

Mr. HURST. Well, I mean, to somebody living where I do it seems crazy. That's how I put it. It seems like a crazy thing to do, but I guess that's where we are.

Chairman GRAVES. Thank you.

No. 2, Mr. DeShon, who is the Chairman of the St. Joe Regional Port Authority. I appreciate you being here and I look forward to your testimony.

**STATEMENT OF DICK DeSHON, CHAIRMAN, ST. JOSEPH REGIONAL PORT AUTHORITY**

Mr. DESHON. Mr. Chairman, I want to thank you for bringing this meeting to St. Joseph, Missouri, to discuss the economic impact the Endangered Species Act has had on small business in northwest Missouri and northeastern Kansas. I would like, for the benefit of our visitors today, to tell you that just a few hundred feet to the west on April 3rd, 1860, the first Pony Express rider was taken across on a ferry on his way to California to deliver mail. Now, every Pony Express rider that came back from California also got on that river to get back to St. Joseph.

My point would be that the river was more reliable as a form of transportation in 1860 and 1861 than it is today, because we're not ever sure whether we're going to have water in that river or not.

I'm chairman of the St. Joseph Regional Port Authority, and we were created in 1988 by the City of St. Joseph, Buchanan County, State of Missouri, to spur economic development, create jobs and share as a transportation advocate for manufacturing companies, farmers, and agribusiness.

Now, I'm going to try to be very brief because we're short of time, but we've taken the lead in the redevelopment of the stockyards industrial park. In the next couple years we're going to have a new pork processing plant there that's going to be state-of-the-art, corporate headquarters, thousands of new jobs. We also built a new road in the stockyards area, Bluff View Road. We are between Ag Processing and Aquila, and we've opened up barge facilities, as Mr. Keith told you, on the Missouri River in the spring of 2002. This barge facility was built at the intersection of Missouri Highway 36 and Interstate 229 and on a main line of the Union Pacific Railroad. Now, if we had any water in the Missouri River, we could truly be a competitive transportation advocate.

This area is a major producer of corn, soybeans and wheat, all of which could be shipped by barge. Now, we don't always ship it by barge because we don't always have a market. The market for grain is very competitive, but today, even if we could ship a thousand barges to China or anyplace in the world, we would not be able to ship it on the river.

I'm sure you also know that we use thousands of tons of fertilizer in this area, all of which could be shipped into St. Joseph by barge. Now, what you may not know is that we have four companies in this area that use 150 to 2,000 tons of processed wire rod, all of which can be shipped by barge, and that is the most economical way to ship it.

During our first year of operation we unloaded 16 barges of steel coil wire. Each barge takes 60 to 75 trailers off of Missouri highways, and I can tell you we need to relieve our Missouri highways. If we could haul all the wire by barge, we could take 7,500 trucks off the highway. Besides the wear and tear, I'd like to consider the pollution that has been moved from our cities and towns when we ship on the river.

Now, we intended to quadruple the barges for 2003 but we ended up with an unreliable water source, as Mr. Keith pointed out. The barges refused to even consider shipping on the Missouri River because they didn't want their barges caught. We've been advised that MEMCO Barge Line will halt operations on the Missouri River in 2004, and the owner of Blaske Marine in Alton, Illinois, said the chances were slim he would be bringing barges to this city. That could cost up to a thousand jobs.

Why is this a devastating situation? The first reason is we remove a competitive form of transportation from our market. One of our fertilizer dealers, a full barge, docks in St. Louis. He is forced to unload the barges into hopper cars and then ship to St. Joseph. This doubles his transportation costs which is eventually put back on to the farmer unit.

The second reason is that in St. Joseph we have a 200-acre brownfield industrial park that we believe that we can develop if we have a viable barge facility. Our port authority is the anchor for that industrial park. I can't tell you how many jobs that we weren't successfully able to create in St. Joe in the last five years when we were unable to provide land that could be developed.

The third reason we need to increase the Missouri River flow is we are the biggest feeder for the Mississippi River. The Mississippi would not be the river it is today without water from the Missouri. We have a very short history but we will never realize the potential we think we should have if we can't depend upon the Missouri River.

The Endangered Species Act has closed our barge facility for the 2004 season. No one in their right mind will take a chance of getting caught on the Missouri with a loaded barge.

Now, it would make a better story for the press if I could tell you that we were going to be bankrupt in a year or two, but I am not going to give the press that benefit because we will be here, we will survive, because we think that this group that we're speaking to today will eventually see that we can do something about bringing some sensibility to the Endangered Species Act. We just don't have enough water on the Missouri River today. Hopefully we will be able to evolve from that.

Chairman GRAVES. Thank you, Mr. DeShon. Next is Mr. Chad Smith, who is the Director of the Nebraska Chapter of American Rivers. Thank you for being here. I look forward to your testimony.

## STATEMENT OF CHAD SMITH, DIRECTOR, NEBRASKA CHAPTER OF AMERICAN RIVERS

Mr. SMITH. Thank you, Mr. Chairman, Mr. Blunt, Mr. Gibbons. I very much appreciate the opportunity to be here today and testify on the Endangered Species Act and its role on the Missouri River.

My name is Chad Smith. I'm the Director of the Nebraska Field Office for American Rivers, and I have also done work on the Missouri. I come before you as a life-long Nebraskan, hunter, angler and conservationist. I grew up and spent a lot of my time on the Platte River in central Nebraska. I grew up there duck hunting and cat fishing with my dad, and those experiences have grown into a passion—you could probably more accurately describe it as an obsession—with hunting and fishing that stands to this day.

As a hunter and angler, I spend a good deal of money every year on licenses, gear, travel and other recreation-related expenditures, money that flows into the local communities and small businesses that support hunting and fishing. Thousands upon thousands of other Americans do this every year as well, making hunting, fishing, and other outdoor recreational pursuits a multi-billion dollar industry in the United States.

In all cases the expenditure of those dollars and the viability of the small businesses that cater to recreation and tourism depend on one common thread: a healthy environment. Outdoor recreation and tourism is largely centered on places that attract people to them, be they rivers, plains, forests, or mountains. In the case of the Missouri River, an immense opportunity to tap into that economic potential is being squandered. The health of the Missouri River is in dire straits, and the river is simply not the destination of choice of most people in the Missouri River basin. Most have turned their backs on the Missouri, and it is not living up to its economic potential or providing the kind of quality of life benefits that we should expect from a big river system.

Often the Endangered Species Act is invoked as a tool of last resort to prevent the continued decline in health of a natural system like the Missouri River. The focus is often on one or a few species, and those species receive much of the attention in the public policy debate. But endangered and threatened species are mere indicators of greater problems in an ecosystem and reflect that management changes are necessary to help not just particular endangered species, but ultimately all the native species that inhabit the ecosystem and the people that depend on the ecosystem system as well.

Over the past 15 years the Army Corps of Engineers has spent millions of taxpayer dollars analyzing these potential changes in the operation of six large main stem dams on the Missouri River. This process is part and parcel of the Corps' attempt to update and revise the Missouri River Master Manual which is the guidebook, as you know, that the Corps uses to operate the river's federal dams. As a part of that analysis, the Corps has evaluated dam reform options that incorporate more natural flows on the Missouri.

Natural flow restoration has been called for by an independent panel of the Natural Academy of Sciences, the U.S. Fish and Wildlife Service, and all of the fish and wildlife management agencies from the states in the Missouri River basin. The Corps itself has found that restoring more natural flows to the Missouri River will actually result in an annual net economic benefit to at least $8.8 million for the basin. Corps studies also show that we can do that and achieve this economic benefit without ceasing navigation on the lower Missouri, improving navigation on the Mississippi, with-

out unduly impacting floodplain farmers along the river and ensuring that everyone gets their power and their water.

Further, the economic options presented by a Missouri River that once again looks and acts like a river are endless. By making the Missouri River a destination for hunters, anglers, boaters, campers, hikers and families, communities up and down the river can tap into limitless economic possibilities that are associated with outdoor recreation and tourism. Coupled with on-going agricultural practices in the floodplain and other traditional uses of the river, the Missouri River can truly become an economic engine for this entire basin.

On the Missouri, as in so many cases, the Endangered Species Act can be a tool to not just ensure a species avoids extirpation. The Endangered Species Act is ultimately a tool to help us to realize ways to better manage natural systems, link them more directly with our economic prosperity, and ensure we leave a lasting legacy for future generations. The acrimony that has followed the Master Manual revision process on the Missouri River is unfortunate and largely unnecessary. We now need to focus on how to deal with potential impacts of flow restoration, ensure no single person or group is unfairly given the burden of management changes, and begin implementing a new vision for the Missouri River and the valley through which it flows.The Endangered Species Act is but one tool to help us toward that end. Thank you.

[Mr. Smith's statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Smith. We will now hear from Paul Davis, who has come to us from Interstate Marine Terminals, Incorporated. I appreciate you being here.

**STATEMENT OF PAUL DAVIS, INTERSTATE MARINE TERMINALS, BOONVILLE, MISSOURI**

Mr. DAVIS. Good morning, Mr. Chairman, and thank you for allowing me the opportunity to share some comments with you regarding the impact of the Endangered Species Act on commercial navigation on the Missouri River.

I am Paul Davis, the owner of a family-owned barge terminal, located on the Missouri River at Boonville, Missouri. Founded in 1971, Interstate Marine Terminals ships and receives bulk commodities, primarily fertilizer, feed, grain, and salt by barge, truck and rail. We are also partners with the Howard Cooper Regional Port Authority, which is the only state-funded public use barge-docking facility on the Missouri River between St. Louis and Kansas City. Our company distributes products to some 250 wholesale customers in a 150-mile radius of Boonville. I have worked at our terminal in Boonville since 1974.

In July 2003, a federal judge ordered the U.S. Army Corps of Engineers to reduce Missouri River flows. The court order was in response to arguments by conservation groups that high flows on the lower portions of the river threaten the least tern, piping plover and pallid sturgeon, which must be protected by the Endangered Species Act. As a result of the court-ordered stoppage of navigation on the Missouri River, the primary barge-towing carriers canceled much of the fall 2003 service to facilities such as mine. Prior to the stoppage, I had anticipated delivery of 25,000 tons of fertilizer and

grain outbound shipments for the fall of 2003. Eighteen of the 19 barges were canceled because of the stoppage.

As a result, my facility only received 1,300 tons by barge of the planned 25,000 tons in the fall of 2003. The other 23,700 tons was moved by truck and/or rail, with additional freight costs of $15 per ton average. $15 per ton additional freight adds approximately nine percent to the average cost of fertilizer at Boonville, resulting in extra costs in fall 2003 estimated at $355,000. This extra cost of doing business is ultimately passed on to farmers in higher fertilizer costs and to consumers in higher food costs.

Additional costs are incurred as freight is diverted from barges to trucks in the form of additional wear and tear on highways, more pollution from truck fuel burning, and more tires going into landfills.

In addition to the negative economic impact experienced by my business last fall, which can be quantitatively measured, the long-term effect of the 15-year struggle over the river flow has been to cause shippers to seek alternate freight modes rather than to constantly deal with the uncertain future of Missouri River navigation. Due to the minimum service summer flows, my company is handling reduced barge tonnage in highway salt, molasses, and grain. With the reduced flows, the lower barge drafts have made products uncompetitive in my market area.

Due to the uncertain future of Missouri River navigation, I have observed neither construction of new facilities nor expansion of existing facilities on the lower river for many years. In 1988, when the Corps commenced the Missouri River Master Manual review process, the Corps predicted that the review would be completed in three years. And yet, 15 years later we find ourselves no closer to a solution that everyone can live with than we were when the review began.

Just last week I had a phone conversation with a manager in a company that produces a product I am interested in bringing in to mid-Missouri for distribution. When I told the man that I owned a barge terminal on the Missouri River, he was silent for a moment and then asked, "Isn't that the river that might not have any barges in the future? Are you sure that we could even ship our product to you?" And then he went on to say, "I'll get back to you in a couple of weeks." everyone in this room that's in business knows what that means.

I am sure that any number of companies that might normally be interested in expanding into the Missouri market will not do so as long as the cloud of uncertainty caused by the ESA issue remains.

There is currently much debate in the United States regarding the outsourcing of jobs to offshore locations such as India and China. In our increasingly global economy, an open marketplace will invariably seek out lower costs of production. One way to help prevent the additional job loss, in my opinion, would be for the United States to seriously re-examine the Endangered Species Act. The ESA was passed over 30 years ago in a show of bipartisan good intentions to help animals on the brink of extinction. But since that time environmental groups have hijacked the Act, turning it into a bludgeon by which they can enforce their vision of a development-free America. The ESA's capricious and uneven en-

forcement only underscores the utter bankruptcy of the law. The government spends so much of its time and money defending itself from specious litigation, mostly by environmental groups, that there's little time left to actually devote to flora or fauna.

Currently the ESA provides only penalties against non-compliant property owners and developers. The natural reaction to the threat of penalty is that some property owners remove or diminish habitat, rather than enhance, in an effort to prevent endangered species from habituating on their property in the first place. Well, Gentlemen, this is exactly opposite of the intention of the ESA. And I suggest rather than just penalizing those in non-compliance, the government should develop an incentive-based approach that rewards landowners with endangered species habitat enhancement. If this is not done, I believe endangered species recovery will continue to be a divisive issue that further erodes our ability to compete in the global economy.

Thank you.

[Mr. Davis' statement may be found in the appendix]

Chairman GRAVES. Thank you, Mr. Davis. Now we will hear from Bruce Hanson with MFA.

**STATEMENT OF BRUCE HANSON, VICE PRESIDENT OF TRANSPORTATION AND DISTRIBUTION, MFA, INCORPORATED**

Mr. HANSON. Thank you, Mr. Chairman. I appreciate the opportunity to be here this morning.

My name is Bruce Hanson. I am vice president of transportation and distribution for MFA, Incorporated. MFA is a regional agricultural cooperative serving 45,000 members in several Midwestern states. I am here to testify on the impact the Endangered Species Act has on our farmer owners and the agricultural economy at the current time.

Farmers pay retail prices for their inputs and sell their output at wholesale prices. They also pay the freight both ways. Transportation costs dictate market access and profits. Reliability and consistency is critical. For the past two years, and apparently this coming season, the Missouri River has been and will be neither.

MFA has facilities to receive fertilizer and ship grain on the Arkansas, Mississippi, and Missouri Rivers. We move over ten million bushels of grain and 500,000 tons of fertilizer via the river system. We calculated the following impact to our members based on our tonnage moved on the Missouri River. One 8'6" draft barge holds on average 1,500 tons. That's equivalent to 15 rail cars or 60 trucks. Railroads are at capacity. We have averaged 15- to 30-day delays in receiving rail cars since November, and our highways and bridges are in need of major repair and are congested.

The Gulf Coast export market is the primary destination for the Missouri River grain. The Gulf market does not take single rail car shipments, only unit trains. Further, grain basis values are often highest during the late spring and summer months. Therefore, without reliable river transport, this market is shut out to our farmers. Using actual rates published in Union Pacific Railroad's tariff, the freight from Kansas City to the Louisiana gulf in 75-car unit trains is 52 cents per bushel. By comparison, a normal barge rate from Kansas City to the Louisiana gulf is 38 cents per bushel.

Based on MFA's Missouri River volume, this will cost us and our producers over $750,000 in lost grain values due to market access, timing and freight costs. MFA has a fertilizer facility at Brunswick, Missouri. Over two-thirds of our inbound fertilizer normally moves via water. None will this season. The economic impact of shifting to higher cost, less environmentally friendly modes is $1.1 million. Mr. Chairman, that's almost $2 million historically.

Newly developed research has indicated that the preliminary cost to Missouri agriculture due to the inability to use the Missouri River transportation is over $22 million.

I have to ask, "Where is the common sense?" closing a major navigable waterway for experiments is illogical. Less than 25 percent of the river is tern and plover habitat. Alternative means of creating habitat exist. On the Platte River, islands and sand pits produce over seven times as many birds at half the cost. Approximately half of the adult plovers nest above the Gavin's Point Dam. Where is the common sense?

The pallid sturgeon's range is from Montana to Louisiana. We heard a little bit about that this morning. Yet some propose to restore habitat where sturgeon haven't been found in six years, perhaps at the detriment to locations where they do exist. Where is the common sense? We have 200 native natural sturgeon in the river I heard this morning. That means there's maybe 50 breeding pairs a year, and we're going to shut down a major navigational system. Let's not forget the introduction of non-native, predatory fish for sport that eat young sturgeon. Where is the common sense in that?

I believe that most people are environmentalists. However, some are radical fanatics who are anti-growth, anti-progress, anti-anything. Look at the debate on our lock-and-dam system on the Mississippi and Illinois Rivers. Decades and millions of dollars have been spent on studies and environmental mitigation without much progress. Meanwhile, foreign competitors continue to invest and modernize their waterways to this country's economic detriment.

It is time to remove the protective skirt that these groups hide behind called the Endangered Species Act. It is time to get down to real business. Reform the Endangered Species Act to operate this country for people and prosperity. That is common sense. Thank you.

[Mr. Hanson's statement may be found in the appendix.]

Chairman GRAVES. Thank you all. We will now have questions. We will try to keep our answers as brief as possible so we can get back on schedule. I know everybody has schedules to keep. I do have a question for Mr. Smith.

When you talk about the Endangered Species Act, it seems more instead of a danger zone it's what you can use the Endangered Species Act to achieve. In another comment I think you said, "a river that looks and acts more like a major river." can you tell me what—that baffles me. Can you tell me what your ideal impression of a river should look like?

Mr. SMITH. Well, I don't think there really is any ideal that any one person has. It depends a lot on what the input in the river is. This river out here is a ditch, and the rest of it upstream is pooled

underneath large reservoirs. It's not the Missouri River that evolved over time.

Now, I don't, or our organization doesn't support turning everything back to the way it was originally, but to be able to get people out there and enjoy something that's not deadly dangerous to children when they want to get out there to swim, that attracts fish and wildlife so people can get out there and bird watch and hunt and fish, we need to try and bring back some of the characteristics of the river.

The heartbeat of any major river system is its natural flow. Again, we're not going to go back to the pre-dam unregulated flow, but we can bring back small pieces of that heartbeat and try to get the function of the river working again.

In terms of the form, I've heard them talk about several times today there's a lot of effort underway right now today with sellers and others to try to cooperate with landowners to try to get the river spread out in a few places, have some side channels, some wetlands, some backwaters, the kind of habitat that got lost in the channel of the river. That's not only for fish and wildlife; that's where someone who wants to hunt and fish, that's where we would go to hunt and fish.

So just trying to get away from thinking of the Missouri as a commercial artery that people largely ignore; and I've found that to be the case as I've traveled up and down this basin for six years now. Getting the river away from that image and getting people to think of it as an asset is going to require some effort on the form and the function, not turning back to the provision of what it was that caused it, but trying to get it to actually be a system of delivery out there.

Chairman GRAVES. What is your group looking for? For a commercial route?

Mr. SMITH. They were, and we made an attempt to try to make a commercial route, but it's been a failure in large part as a route for a long time; and I still firmly believe you can continue to have navigation in some way on this river but also do something for this river that brings people back to it, and I don't think it's something that's not a need or situation. I think you have the impediment right now you can focus on this endangered species stuff and that is very real and felt antagonism towards, and we need to focus on how do we get over some of these failures. We don't have the navigators bearing the burden, we don't have the farmers bearing the burden, but people need to realize there is a process out there.

Chairman GRAVES. Give me a sense for our children swimming out there and bringing the people back. Even Lewis and Clark, you know, according to the journal, one of them even says he dipped a cup down in the river and you pull it up and it's full of mud and half of it's water. What's taking the river back to that? I don't want my kids to be swimming in it. For that matter, even the mosquitos are a huge problem for getting back to that. You know, if we have the pools and backwater stuff, that's going to have insects there. I just don't, I absolutely just do not see—I do not see the rationale behind going to that, which I don't believe will—you know, is going to accomplish anything at the expense of all these lives that we're going to affect. It baffles me that we are at that point.

Mr. SMITH. Well, we can come to an agreement, I think, about what the river can mean for a wide variety of people, and I really believe that it is a false choice to say that a healthy environment does not equal a healthy economy. I think those two things go hand in hand, and helping the environment doesn't mean taking things back to the way they were in 1804, but we have a lot of information that we've gained over the past hundred years of doing science in this country on the Missouri. There's any number of scientific studies that talk about the need for having flow recreation and habitat restoration to a measured degree, and I firmly believe that we can take some of those small steps forward and bring some of this river back and not drop jobs down the river and, in fact, creating more jobs and make this river truly an economic engine for this basin. But I think people think it is that now but it's not, but it could be.

Chairman GRAVES. Mr. Blunt?

Mr. BLUNT. Mr. DeShon, the port authority, do you own any facilities? Does the port authority manage any facilities?

Mr. DESHON. Yes, we have a 13-acre site where our new barge facility is built now.

Mr. BLUNT. It's a new barge facility?

Mr. DESHON. New barge facility.

Mr. BLUNT. How much of an investment was made in it?

Mr. DESHON. About a million and a half dollars.

Mr. BLUNT. And essentially that new facility won't be used in the next year or two?

Mr. DESHON. Not in barges. It's interesting that you ask that, now I can tell you, we will bring in the steel now, it's going to come from Canada. It will not come from Houston, and so that affects our balance-in-trade, and that's unfortunate because I prefer to buy steel in the United States.

Mr. BLUNT. And the steel will come in by?

Mr. DESHON. Railroad.

Mr. BLUNT. By railroad.

Mr. DESHON. Or truck.

Mr. BLUNT. Mr. Davis, you mentioned the fertilizer costs. In answer to the fertilizer costs that Mr. Hanson mentioned, the enhanced, the added transportation costs, doesn't that create a competitive problem for us because just because we have extra costs on this part of the river, that doesn't mean the price is going to go up where that grain is ultimately sold, does it?

Mr. DAVIS. That's the essence of the economic negative impact on the farmers is that that does not. In fact, the farmer cannot pass on those costs. They take the direct hit. They are going to get the same price for their grain as the Gulf or wherever, but the transportation costs increase so they're the ones that are impacted. Similarly on fertilizer. They have extra costs in fertilizer, particularly cost of production. They're not getting paid any more for their product.

Mr. BLUNT. You've been in business a long time now. What do you see over the last couple of decades? Give us a comparison of where you see the future today compared to where you did 20 years ago when you were looking at the traffic and the barge situation you were looking at there.

Mr. DAVIS. Well, I'll say this: Being a family business, if we had known 30 years ago that we would be sitting here today talking to these issues, we never would have invested in the first place, but there was a need for a facility like ours because the railroad service was already in a declining mode, and we just filled a market need which continues to be there today.

Before, in the late '80s we were doing up to 100,000 tons a year through our facility. Due to the uncertainty of this debate over the river flows and no confidence in the expansion, and it's like the death of a thousand paper cuts. We're lucky to do 40,000 tons a year now just because all of our market has been nervous for a long time, they're finding alternate methods of shipping. So it's just been a gradual decline, and this year no towing, in essence, on the river.

I can remember when I first started there were eight or ten tow companies on the river and it was a very viable industry. It's not that the market isn't there for it. It's just when there's the uncertainty, people's instinct is to find other ways to do business.

Mr. BLUNT. Mr. Hanson, you talked about the importance of having a unit train, a dedicated train. You sell grain, obviously, to offloading and other considerations. I guess your point is it's a lot harder to fill up that dedicated train at a one-barge location than it would have been to fill up a six-state and a 32 or a 30 car.

Mr. HANSON. That's correct, and also there are not unit train stations along this part of the Missouri River. They're all smaller, 10, 15, 3, 4, 6 car shipping locations, so the fact of even having that option would require the investment of, you know, millions of dollars.

Mr. BLUNT. So without barge traffic how do you get the best market.

Mr. Hanson. Well, you go to your second or third best market and you go by truck.

Mr. BLUNT. That's what I thought. That's what I thought.

Just one question, Mr. Smith. Do you take litigation that you believe are primary litigants and do some litigation on this issue?

Mr. SMITH. Yes.

Mr. BLUNT. And you mentioned that the Endangered Species Act is offered as a tool of last resort. Do you think that's why the Act was created?

Mr. SMITH. Well, I certainly think for some of the species it is a tool of last resort when nothing else has worked and they are getting some extra protection. If that doesn't happen, that's pretty important. In terms of—we've all known the public policy, and I'll speak specifically to the Missouri River. Me personally, my organization, other conservation groups I work with throughout the basin, most of my time in the past six years has been spent on the road giving presentations, talking to civic groups, going to meetings, working, trying to work cooperatively with the Corps of Engineers, elected officials, whoever will listen to try to find a way to avoid litigation and get rid of this endangered species issue and implement a vision for the future and get it working, and it simply has never happened.

The Corps of Engineers, as everyone says here, as everyone knows, has been working on this for 15 years and they keep put-

ting out the same plan after the same plan, and we're not getting to the heart of the matter. I don't want to be involved in litigation. It costs me a huge amount of time and effort to be involved in that. It's not a perfect solution. It's extremely complicated. I'm wasting my time dealing with attorneys and briefs and litigation when I could be out trying to work with people and figure out a way to do this, but frankly, we get to a place where you have a species like the pallid sturgeon that's about extinct when there's an indicator that there are some things seriously wrong on the river system like the Missouri.

This is the kind of thing we get left to and, you know, I think a lot of the problems with the Endangered Species Act maybe aren't necessarily in the language of the Act itself but are problems with perception and implementation that we're all a part of, and I think we need to be much more focused on recovery. We need to be focused on solution building. I mean, I think it would be a great idea to invest in making sure that there were unit train stations, that we don't have to—maybe we need to help deal with the power plants to deal with water issues. Maybe we need to invest in pumping structures for farmers who are having the most considered drainage problems.

That's where we need to be on this: How do we fix these problems and do it so that those people can continue to operate and make a living and do business but so that other people can get out and take advantage of the Missouri, too, and so they can do better things for their communities. I think we focus too much time—I frankly I don't even care about the threatened and endangered species. My concern is the fact that they are an indicator there is something seriously wrong on this river.

When my daughter grows up, she may not be able to get out and enjoy the Missouri River at all. That's something I'm not going to allow to stand, and we need to focus away from the individual species and think more about how do we fix problems and how do we make things work for people.

Mr. BLUNT. Are you aware of your expenses as part of the litigation, your group?

Mr. SMITH. Yes.

Mr. BLUNT. What percentage of your budget goes to litigation?

Mr. SMITH. Our lawyers are working pro bono.

Mr. GIBBONS. Thank you very much, Mr. Chairman. I know the time is short. I'll try to keep my questions brief. I only have really one question, and it goes to Mr. Smith.

As a representative of the bringing rivers to life, American Rivers Organization, you speak for that group?

Mr. SMITH. Uh-huh.

Mr. GIBBONS. After listening to literally every one of the other people who came before this Committee this morning, does your Committee accept the concept or will you endorse the concept that the Endangered Species Act has to be modernized for the 21st Century?

Mr. SMITH. I think in terms of implementation it probably does. I'm not an expert on the language and I'm not a lawyer so I——

Mr. GIBBONS. Let me just paraphrase———.

Mr. SMITH[CONTINUING] Okay.

Mr. GIBBONS.—with you because I think it's very simple. What I hear Mr. Davis saying is barge traffic being low due low water added freight costs, is going to add to both the cost of products that are going to be brought up here, it's going to add to the pollution, air pollution, landfill pollution, it's going to add to the loss of competition, the loss of businesses, loss of jobs in this area. And you take that and add that to the fact that there have been 1,250 species listed on the Endangered Species Act and 15 or so have been recovered throughout all of that time frame, billions of dollars have been spent on the Endangered Species Act, most of which have been in bullet-proofing acts for losses to that organization before, and most of the dollars are spent in defending litigation rather than on the recovery. Because 15 out of 1,260 species is not what I call a good result, and in fact, it's been in existence for nearly three decades.

So you would think, like most of the people here think, that this Endangered Species Act has to be made so that it accommodates, as you would say, the economy and the environment, and all of us would agree. We're not here to say that we need to do away with the Endangered Species Act

Mr. SMITH. Yes.

Mr. GIBBONS. We want to modernize it so that we can handle some of these issues that were brought up by your organization; and you speak for them, you're the pulse of that organization. Would you say that it needs to be modernized?

Mr. SMITH. I think in the implementation it does. You know, I just—I'm not going to give a definitive answer on if there's language in the Act that needs to be changed because I think—and I think the Missouri is a great thing. I think the Endangered Species Act needs to be focused on recovery of species that we have a better result than 15 out of 1,200 and also that we deal with issues of the economy.

Mr. GIBBONS. If we don't change the structure of the law, courts will continue to interpret the law the way they have in the past which has resulted in nearly a bankruptcy that everybody that's come here as a witness today complained about.

Mr. SMITH. Right, I understand.

Mr. GIBBONS. So it's my belief and the way I believe this ESA should be amended is that there ought to be some accommodations for these people. There ought to be indemnity for people operating on the river in low water, so if there's something that occurs that isn't the result of their act but due to the Bureau of Reclamation or whomever, lowering the water on the river—or, in fact, what about the idea that there ought to be accountability and responsibility for disaffected environmental groups that bring litigation on the ESA as a tool to stop and block any kind of progress?

There ought to be some sort of accountability and responsibility. For example, if their frivolous lawsuit is lost in court that they pay for the damages that they caused by bringing a frivolous lawsuit.

Those are just simple modernizations that we can do that would make it workable, what would take it out of the court's hands, put it into the hands of the people who are going to better utilize both the resources and the protected species. These are things that I think that the American public is expecting of us, and these are the

kinds of things that we're going to work toward, and that's all I have to say. Thank you.

Chairman GRAVES. First I have a question before I close, one further question, and I'll direct it to Dick—Chad, you can you can answer too, if you want—but each one of you, how do you feel about the pallid sturgeon being put—the survival of the pallid sturgeon being put over your own survival in the port authority?

Mr. DESHON. Well, it's—it's kind of like buildings we have in this city. We're obviously not going to save every old historic building. I'd like to but we're not. We're in another century of worry, and you know, I get very concerned when Mr. Smith talks about the river being turned into a natural flow. Does that mean he wants to take all of our levees out, does that mean we go out and tear the dams out? I'm not sure what that really means, but that would be returning the river to its natural flow. We have a river out here a mile wide. We have no control, and I, you know, I think it's a much bigger issue than returning to its natural flow.

Mr. SMITH. Well, let me say one thing. Certainly anybody that has followed this issue for the last several years knows that we're not advocating removing levees and taking out dams and that sort of thing. I believe it's inaccurate to characterize this as putting the pallid sturgeon above people.

I think we can have the pallid sturgeon, we can have the transportation, we can have hunting and fishing, and we can have a river that works for this basin, and that's our vision and we hope other people have that too.

Chairman GRAVES. Mr. Davis?

Mr. DAVIS. I think it's exactly about putting the pallid sturgeon above people. I've lived and enjoyed living along the Missouri River almost as long as a lot of people in this room, and I'm personally offended when it's referred to as a ditch.

It's interesting that a number of years ago in the middle of this process there were public hearings from St. Joe and farther north, but I attended public hearings sponsored by the Corps from St. Joe, Jeff City, St. Louis, Memphis, and it went on down to New Orleans, and the overwhelming reaction by the farmers at those hearings right in this room, I believe, about the so-called spring-rise concept, the farmers filled this room. It was so violently opposed to that concept that the Corps of Engineers—and I've always had the utmost respect for them—graciously acknowledged that they had not considered the economic impact of backed-up interior drainage if there was a spring rise; and they said we will go back and we will consider that.That took five years for the Corps to look at it again.

In my perception—and I've been watching this since day one—in that interim period up unto that point the economics were being looked at, in my opinion, it was an equal balance of the ESA, but along came the focus on the pallid sturgeon and all of a sudden the tide turned against us, and it's been that way ever since. So I think its political totally behind, hiding behind ESA and using, as I say, a bludgeon.

I'll make a final comment in terms of your question about how I feel about the pallid sturgeon. The same way I feel about us sending dollars overseas when we have lots of needs for money being

spent on poor people in the South or in the ghettos or whatever. We have real needs here and yet we're sending money overseas.

Nobody's offering me a lifeline on this issue, and I'm here feeling pretty endangered myself. You know, ultimately God created a wonderful world, but there's a lot of survival on sustenance, and here it is survival of the fittest, and nobody is offering me any lifeline on survival of the fittest like we are on the pallid sturgeon. Thank you.

Mr. HANSON. Well, first I'd like to say there's vision and then there's reality. One you have to deal with; the other you can think about.

Number two, I think the Endangered Species Act is used exactly as a tool to force issues in litigation and get sympathetic ears and make decisions that are whatever side you want to make them on. It's not being used for a lot else. I don't think anybody out here wants to see people or species go extinct. I certainly don't want to see people go extinct. Fish don't pay taxes. You know, I don't know if there's reincarnation, but I know I damn sure don't want to come back as a pallid sturgeon because that doesn't sound like a lot of fun.

So I would say this: If we need to do things for historic habitat for species, let's do those things. If we need to put them in a zoo, in a breeding, in an aquarium, whatever format we need to to learn, to study them to help them reproduce, fine, let's do that. We've got 200 fish that we're worried about. We've released 40,000? I mean, where's reality?

Chairman GRAVES. Thank you all for being here. I'll offer this information. We will put the legislation together to make changes to the Endangered Species Act and bring it a little bit more into reality. We will be able to take some of these factors into account when making these decisions and move away from using the law to put fish ahead of people.

We appreciate Mr. Blunt being here today, and Mr. Gibbons, we're going to be working with the Chairman, Vice Chairman of the Resources Committee on this legislation, and I look forward to doing that, and finally, we in Washington appreciate you being here and we'll be taking our findings and putting them into the legislation.

I do want to say for the record that we invited people both pro and con, such as the Sierra Club and others, who declined to testify.

I appreciate everyone who was here today. Thank you for your testimony. Thank you very much. This meeting is adjourned.

[Whereupon, at 12:06 p.m., the Subcommittee was adjourned.]

**Opening Remarks**

Good Afternoon and welcome to the Rural Enterprise, Agriculture and Technology Subcommittee of the House Committee on Small Business. Today, we will be examining the devastating economic impact the Endangered Species Act (ESA) has had on small businesses and farmers.

First I would like to thank my colleagues for participating in this important hearing. Our neighbor to the south, Representative Roy Blunt is here. Also, Representative Jim Gibbons of Nevada is joining us. He is the Vice Chair of the Resources Committee. I appreciate both your attendance and participation.

When the Endangered Species Act was passed in 1973, 109 species were listed as endangered such as the bald eagle. Today, there are over 1200 species listed as endangered and 250 more considered "candidates" for ESA listing. Another 4000 species are designated as "species of concern."

I am certain that when this legislation was passed 30 years ago, no one could have foreseen that because of the interior least tern, piping plover and pallid sturgeon that commerce on the Missouri River will now effectively cease to exist. This will cause a major disruption for all those who depend on the river for their livelihoods.

When the U.S. Fish and Wildlife Service came out with their December 16, 2003 Biological Opinion, it spelled the end of trade on the river due to the mandated spring rise and split navigation season. This decision will have a large impact on the people and businesses that rely on the river for day-to-day operations.

Annual regional economic benefits from Missouri River commerce are estimated between $75 – 200 million a year. The Army Corps of Engineers estimates economic losses of at least seven million dollars to commercial navigation and grain terminals as a result of flows declining to below minimum navigation service levels.

Already, the prospects of summer lows have caused two major shippers on the Missouri River to cancel their operations. This creates many problems for our farmers that utilize barge traffic to ship their goods at the cheapest rate. This financial burden is just another problem facing farmers in Missouri who continually face season after season of drought. Additional expenses are detrimental to their survival. Farmers themselves have become an endangered species with only two percent of the population undertaking this important enterprise.

Barge traffic along the river also provides a safer and cleaner mode to transport goods. It takes trucks off our already beaten roads, reduces congestions, and limits the amount of exhaust entering our atmosphere.

Additionally, man-made river flows may increase the risk of flooding or inland draining problems along the Missouri River and its tributaries. Our government should be doing what it can to prevent flooding along the river, not exacerbating it.

Further inland, several million customers, both rural and urban, depend on the Missouri River to supply reliable and affordable electricity in the heat of summer and dead of winter. There is a particular concern that the summer lows may adversely affect the ability of utilities to meet the electricity needs of their customers during critical electrical demands.

Others still rely on the river for their most basic needs, drinking water.

In my view, the Fish and Wildlife Service has not taken into account the very basic, negative disruptions that the amended Biological Survey will inflict on people and their lives, as well as the local economy. While we should do everything we can to protect all God's creatures, we should not place animals over human beings.

I now turn to Representative Blunt to give his Opening Statement.

**Statement of the**
**Honorable Roy Blunt**

I thank Congressman Graves for holding this hearing today and to Congressman Gibbons from Nevada who agreed to fly all the way to Missouri to learn about the effects of the Endangered Species Act on the Show Me State.

The Endangered Species Act (ESA), although will intentioned when it was authored over 30 years ago, has grown into a law that is used to protect all kinds of species, while sacrificing our ability to conduct commerce and provide a living for fellow Missourians. In fact, as Congressman Gibbons will surely identify in his statement, the West has been under siege from this law for many years causing numerous problems in his state as well as in others. Many of our collegues say that the Act is out of control and from what we will learn here today, I will have to agree.

Over the course of my tenure in the United States Congress I have seen many new species added to the endangered species list with very few if any being removed over this same period. What I have found is that it is easy to add species, both plant and animal, and it is impossible to remove them when the time has come. This tells me that maybe it is time to re-examine the effectiveness of the Endangered Species Act, especially as it relates to the commerce and lives of the people of both Missouri and the rest of America.

Today, my colleague has called for this hearing because the ESA is being used to stop commerce along the Missouri River which effects the livelihood of both transportation providers and shippers as well as our farmers and the communities in which they reside. For example, the Fish and Wildlife Service has recommended that the flow of the Missouri be changed to a flow that will specifically help accommodate the habitat of both the Piping Plover and the Pallid Sturgeon. In other words, we will drastically alter the commerce and the livelihood of those who use the river to make their living so two species can better thrive. This really makes no sense to me. I will be the first one to say that we should always strive to find a balance between man and nature.

However, to drastically alter the flow of a river which will hurt those who use the river, increase the possibility of flooding, put many companies out of business and perhaps place Missourians in the dark due increased shortages of electrical power just blows my mind. In my opinion, we are letting the letter of the law take control over common sense which is not right.

I truly believe that a solution can be found where commerce can work effectively within the Endangered Species Act so business can continue to thrive and prosper without damage to the environment and the spirit of the act.

I thank my colleagues for the opportunity to attend this hearing and I look forward to hearing from the witnesses.

Opening Remarks-Congressman Jim Gibbons
Small Business Committee-ESA Field Hearing
February 23, 2004

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Chairman Graves,

Thank you for holding this important hearing today and inviting me attend.

I am not on this Committee, however, the Resources Committee continues to study this detriment of a law called the Endangered Species Act to find ways to protect species AND people.

One aspect of the ESA that especially concerns me, is that it gives the Federal Government carte blanche over private property without the responsibility of compensating the owner for losses.

Nearly 80% of listed species depend on private property for their habitat.

If landowners provide suitable habitat for an endangered species, they run the risk of their property being subject to severe government regulations.

Unfortunately, the interpretation and implementation of the ESA has instilled fear and resentment in law-abiding citizens.

Endangered species are seen as a burden when they should be celebrated.

Aldo Leopold, an environmental philosopher once said, "Conservation will ultimately boil down to **rewarding** the private landowner who conserves the public interest."

The protection of private property rights does not conflict with environmental protection- it is the best guarantee of environmental protection.

After all, who can be expected to be a better of steward of the land than he who owns it?

If endangered species are valuable because they are rare, they should be seen as an asset for a landowner, not a liability.

The ESA needs to be reformed in a way that will force the Fish and Wildlife Service to work

with the private land owner instead of bullying them.

When they show up at the door, they should be holding a check not a gun.

We should compensate land owners for their remarkable stewardship not punish them.

There are many aspects of this obtrusive law to scrutinize, but I will end with this–by reducing the amount of federal land use controls, people will be able to manage their land for the good of the species without worry that the feds will decide all activity must cease on their property.

Again, thank you for holding this important hearing today and I look forward to hearing from our witnesses.

**STATEMENT OF MIKE WELLS, CHIEF OF WATER RESOURCES**
**STATE OF MISSOURI**

**Before the U.S. House of Representatives Committee on Small Business, Subcommittee on Rural Enterprise, Agriculture and Technology**
*The Endangered Species Act's Impact on Small Businesses and Farmers*
February 23, 2004

Good morning Mr. Chairman. My name is Mike Wells; I am Chief of Water Resources for the state of Missouri. Thank you Congressman Graves for inviting me to give testimony on this important issue. My position is located within the Missouri Department of Natural Resources, which is the agency that has statutory responsibility for the state's water resources. I represent the state in all interstate water issues.

Let me begin by saying that the state of Missouri is truly concerned about protecting endangered species and natural habitat along our rivers. In fact, we were one of the earliest proponents for increased funding for habitat restoration projects along the Missouri River – a position we continue to vigorously support. We simply take issue with some of the ways that the Endangered Species Act is being applied to the management of the Missouri River. We strongly believe that there are common sense ways to protect the species without harming citizens who rely upon the Missouri River for other uses.

The Missouri River is a vital resource to the state of Missouri providing drinking water to over 2 million of our citizens, cooling water for our utilities, water to support navigation, unique recreational opportunities, and valuable fish and wildlife habitat. We are concerned that changes in the management of the Missouri River, that some have characterized as necessary to comply with the Endangered Species Act, would be adverse to many of these uses.

In December 2003, the U.S. Fish and Wildlife Service (Service) released an Amended Biological Opinion (Opinion) that included very specific summer low flows of 25,000 cubic feet per second (cfs), below Gavins Point Dam on the Missouri River, purportedly to protect three threatened and endangered species. The reduced summer flow required in this Opinion will eliminate navigation as a viable transportation mode, thereby eliminating jobs of those depending upon river commerce for their livelihoods and increasing costs to farmers. These summer low flows will also increase the costs to Missourians for electricity and drinking water.

Under the auspices of protecting endangered species, flows were restricted to levels that resulted in record low summer flows on the Missouri River in the summers of 2002 and 2003. In the spring of 2002, in an attempt to conserve water in the midst of a drought, the U.S. Army Corps of Engineers (Corps) elected to only release the minimum amount of water necessary to support navigation. As tributary inflows began to decrease, it became apparent in early July that releases from Gavins Point Dam would need to be increased in order to support navigation. It was at this time that the U.S. Fish and Wildlife Service reversed course and decided not to allow piping plovers and interior least terns to be moved on sand islands below Gavins Point Dam, a practice that had been successfully utilized in the past. Because of this, the Corps was prevented from increasing releases above 25,500 cfs to meet the needs of downstream users. By July 5, flows were so low that navigation on the Missouri River was halted. During this period of time, the Missouri River had the lowest recorded summer flows since the Missouri River Reservoir System became operational in the 1950s.

The following impacts were felt by Missourians due to the low summer flows in 2002:

- Transportation costs for farmers and others were increased because navigation was not supported on the Missouri River for almost two months. Water levels at Kansas City were 1.5 feet below the minimum level needed to support navigation.
- River temperatures exceeded State Water Quality Standards (90° F) for 8 days. (Attached is a copy of a letter notifying the Corps that the low releases were causing temperature problems and also a Notice of Violation for temperature.)
- Drinking water facilities (including Kansas City and St. Louis areas) had taste and odor problems and pumping/treatment cost increases.
- Power Plants that use the river for cooling had generating capacity reduced.
- RiverBarge Excursions Inc. canceled a riverboat trip from St. Louis to Sioux City, Iowa, due to low river flows. Contacts with vendors were canceled impacting local economies up and down the river. The company estimated its loss at $1 million.

In the summer of 2003, a Court Order requiring the Corps to comply with the Service's controversial November 2000 Biological Opinion caused releases to be limited to 25,000 cfs during the months of July and August and reduced to 21,000 cfs for three days in mid-August. As a result, new record-low flows for the summer months were established in this period. Due to the summer low flows, navigation was not supported for approximately 40 days, taste and odor problems

increased treatment and pumping costs for drinking water utilities, and power generation utilities experienced reduced plant capacity and loss in efficiency.

Not only does reduced flows impact Missouri River uses, it can also impact the Mississippi River as we saw in August of 2003 when the low flows on the Missouri River contributed to barge groundings and suspension of navigation on the Mississippi River near St. Louis. At the same time the low water trough from the Missouri River reached the Mississippi River, navigators began to experience groundings and the U.S. Coast Guard closed the river to navigation for several days. At that time, the Missouri River was supplying almost 60 percent of the flow to the Mississippi River at St. Louis.

Despite the economic harm inflicted on Missourians in the past two years, the summer low water flows mandated in the Service's Opinion for the next two years are virtually identical to those experienced in the summers of 2002 and 2003.

In addition to summer low flow, the Opinion mandates a man-made "spring rise" of up to 20,000 cfs that would put Missouri communities and river bottom farmers at greater risk of flooding. The Missouri River is free-flowing for over 800 miles from below Gavins Point Dam to the confluence of the Mississippi River, with over 550 of these miles being within the state of Missouri. Water released from Gavins Point Dam can take from 10 to 12 days to travel this distance. Even with low river stages, an increase in releases from Gavins Point Dam increases the risk of flooding in Missouri. As you know, springtime can be very wet in Missouri, and the Missouri River is prone to sudden rises. Once water is released from Gavins Point Dam, it can not be retrieved.

In May of 2002, the conditions on the lower Missouri River were ideal for a man-made spring rise (i.e. river stages were low). In mid-May, the Missouri River rose 17 feet in less than three days at Boonville, Missouri. If an additional 20,000 cfs of water had been released from Gavins Point, the "spring rise" as prescribed by the Service's Opinion would have reached Boonville at the same time as the flood peak, adding approximately 1.3 feet to the flood height. Attached is a graph of a U.S. Geological Survey (USGS) river stage data at Boonville in the spring of 2002. Driven by heavy rainfall, river levels went from normal to above flood stage in 2 days. An examination of historic flow data at Boonville for the months of April through July shows that approximately 75 percent of the time the mean daily flow of the Missouri River at Boonville exceeded flood stage (160,000 cfs). This shows that in Missouri we experience a spring rise in most years without additional releases.

Our greatest concern is that the Endangered Species Act is once again being administered in a very prescriptive manner. The Service has mandated actions based on questionable science with little or no regard for the significant adverse environmental and economic consequences of the action. The Service is mandating actions with disregard for the many other uses of the resource. This creates an impossible situation for the Corps, which is required to consider a broader spectrum of issues, and the many citizens of Missouri who rely on the river.

The Service's actions are based on a dated analysis of less than 30 river miles that have changed significantly since last surveyed and are likely not representative of the river as a whole. As another example of poor scientific reasoning behind the Service's Opinion, the Service has promoted the summer low flow on the Missouri River as mimicking the "natural hydrograph". The low flow period the Service is mandating includes the month of July, when the natural hydrograph below Gavins Point Dam shows that July, with a mean flow of 54,000 cfs, is the month with the second highest flows (June having the highest). Limiting the flows to 25,000 cfs during July would provide less than one-half of the natural hydrograph immediately below Gavins Point Dam with no clear benefit, but causing obvious pain to those who depend on the river.

The Missouri Departments of Natural Resources and Conservation have championed a summer flow regime that we believe will benefit the fish and wildlife of the Missouri River while supporting other uses of the river. This plan suppresses evacuation of excess water when possible during August and early September when flows were historically low. It proposes providing a flow of 41,000 cfs at Kansas City in six out of ten years. This flow level supports full service navigation and is adequate for water supply and power plant cooling. We believe that this is a common sense plan that provides additional habitat for the species while protecting other uses of the river. The recent National Academy of Science report suggests that we seek "low hanging fruit". By focusing habitat development on the lower Missouri River and the reach near the confluence of the Missouri and Yellowstone Rivers, the Service and Corps can take advantage of two critical reaches of the river that have more natural hydrographs. This would avoid the contentious issues related to flow while providing benefits to the pallid sturgeon, the species that is considered in jeopardy.

In the recent Opinion the summer low flows are used to create shallow water habitat for the species. However, physical habitat restoration projects can be

accomplished that take advantage of existing flows, thereby making drastic flow changes unnecessary. In the areas of the Missouri River where physical habitat improvements have been made, shallow water habitat is available across a wide range of flows. This means that flows that are beneficial for drinking water supply, power generation, and navigation can also meet the habitat needs of threatened and endangered species.

Let me reiterate that the state of Missouri is truly concerned about protecting endangered species and natural habitat along our rivers, but we believe that there are common sense ways to protect the species without harming our citizens who rely upon the Missouri River for other uses.

Thank you for the opportunity to testify before this committee. At this time I would be glad to answer any questions.

STATE OF MISSOURI Bob Holden, Governor • Stephen M. Mahfood, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.state.mo.us

FEB 18 2003

Brigadier General David A. Fastabend
Division Engineer
Northwestern Division
U.S. Army Corps of Engineers
P.O. Box 2870
Portland, OR 97208-2870

Dear General Fastabend:

The Missouri Department of Natural Resources is the agency responsible for both the water quantity and water quality resources of the State of Missouri. As such, we are concerned that the Corps is making changes in the operations of the Missouri River that differ from the current water control plan without properly analyzing the impacts these changes may have on the water quality of the river.

In July and August of last year when reservoir releases were restricted to 25,500 cubic feet per second (cfs), summer flows on the Missouri River reached record lows. As a consequence of these abnormally low flows, water temperatures exceeded 90 degrees Fahrenheit at more than one location on the river. In fact, state water quality standards for temperature were exceeded on the Missouri River for eight days. The average water temperature of the Missouri River in July of last year was the highest on record (1930-present). Average water temperature in August of last year was the third highest of any year over this same 73-year period.

Changes in river flows not only have adverse economic and social impacts, but this new data clearly shows that changes in flow also can cause significant adverse environmental impacts. If river temperatures continue to exceed water quality standards, the river's ecosystem would undoubtedly be damaged. It is of even greater concern to our department that the U.S. Fish and Wildlife Service's 2000 Biological Opinion actually prescribed summer flows that would have been 4,500 cfs lower than those experienced in 2002. Over the past 50 years, numerous downstream interests along the Missouri River have invested in infrastructure and made business decisions based on the dependable river flows prescribed in the current water control plan. Public utilities and industries have come to rely on the cooling and waste assimilation capacity of the river. It is absolutely critical that any new plan for the operation of the Missouri River continues to provide the dependable flows on which these downstream interests have come to rely.

Brigadier General David A. Fastabend
Page Two

We are pleased that you have re-initiated formal consultation with the U.S. Fish and Wildlife Service on the current water control plan for the Missouri River and generally concur in the conclusions of the supplemental information presented. However, the assessment could be strengthened had additional information had been presented on the water quality impacts of low flows. The enclosed data on Missouri River temperature was collected this past summer and should be considered in the consultation.

When making any decision to change the operation of the Missouri, the Corps must consider all potential impacts. Hopefully this temperature data as well as other water quality information will be used in the future when assessing the impacts of summer low flows. My department continues to believe that there are practical solutions to managing the Missouri River that will improve habitat for endangered species without adversely impacting the authorized purposes. Please do not hesitate to call me if we can be of assistance. If you have specific questions about the data we have provided, please contact Mike Wells, Chief of Water Resources, at (573) 751-2867 or at P.O. Box 176, Jefferson City, Missouri 65102. Thank you.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Stephen Mahfood
Director

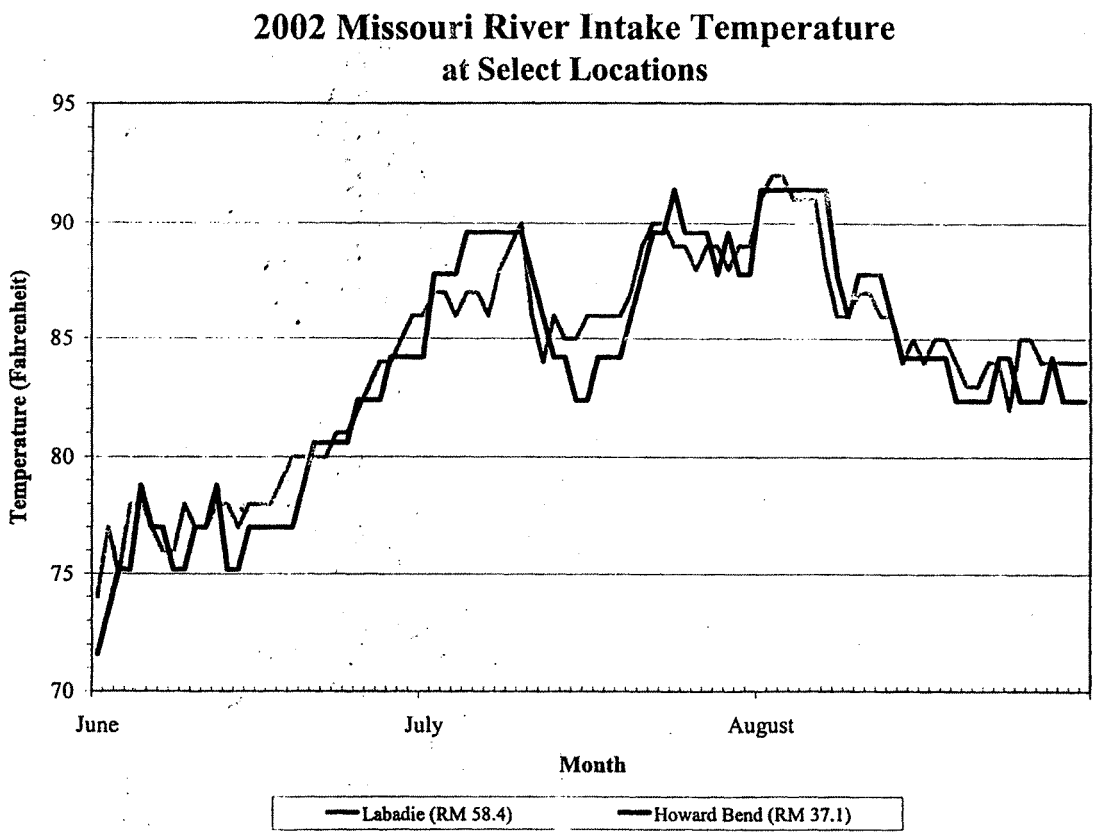
SM:mwd

c: Steven A. Williams, Director, U.S. Fish and Wildlife Service, Washington, D.C.

Enclosures

# Summer 2002 - Missouri River Daily Temperature Reading
## at Howard Bend River Mile 37.1

| June DATE: | TEMP °F | July DATE: | TEMP °F | August DATE: | TEMP °F |
|---|---|---|---|---|---|
| 1 | 71.6 | 1 | 84.2 | 1 | 91.4 |
| 2 | 73.4 | 2 | 87.8 | 2 | 91.4 |
| 3 | 75.2 | 3 | 87.8 | 3 | 91.4 |
| 4 | 75.2 | 4 | 87.8 | 4 | 91.4 |
| 5 | 78.8 | 5 | 89.6 | 5 | 91.4 |
| 6 | 77.0 | 6 | 89.6 | 6 | 91.4 |
| 7 | 77.0 | 7 | 89.6 | 7 | 91.4 |
| 8 | 75.2 | 8 | 89.6 | 8 | 87.8 |
| 9 | 75.2 | 9 | 89.6 | 9 | 86.0 |
| 10 | 77.0 | 10 | 89.6 | 10 | 87.8 |
| 11 | 77.0 | 11 | 87.8 | 11 | 87.8 |
| 12 | 78.8 | 12 | 86.0 | 12 | 87.8 |
| 13 | 75.2 | 13 | 84.2 | 13 | 86.0 |
| 14 | 75.2 | 14 | 84.2 | 14 | 84.2 |
| 15 | 77.0 | 15 | 82.4 | 15 | 84.2 |
| 16 | 77.0 | 16 | 82.4 | 16 | 84.2 |
| 17 | 77.0 | 17 | 84.2 | 17 | 84.2 |
| 18 | 77.0 | 18 | 84.2 | 18 | 84.2 |
| 19 | 77.0 | 19 | 84.2 | 19 | 82.4 |
| 20 | 78.8 | 20 | 86.0 | 20 | 82.4 |
| 21 | 80.6 | 21 | 87.8 | 21 | 82.4 |
| 22 | 80.6 | 22 | 89.6 | 22 | 82.4 |
| 23 | 80.6 | 23 | 89.6 | 23 | 84.2 |
| 24 | 80.6 | 24 | 91.4 | 24 | 84.2 |
| 25 | 82.4 | 25 | 89.6 | 25 | 82.4 |
| 26 | 82.4 | 26 | 89.6 | 26 | 82.4 |
| 27 | 82.4 | 27 | 89.6 | 27 | 82.4 |
| 28 | 84.2 | 28 | 87.8 | 28 | 84.2 |
| 29 | 84.2 | 29 | 89.6 | 29 | 82.4 |
| 30 | 84.2 | 30 | 87.8 | 30 | 82.4 |
| | | 31 | 87.8 | 31 | 82.4 |
| MAX | 84.2 | MAX | 91.4 | MAX | 91.4 |
| MIN | 71.6 | MIN | 82.4 | MIN | 82.4 |
| AVG | 78.3 | AVG | 87.5 | AVG | 85.8 |


2002 Missouri River Intake Temperature
at Select Locations
95
90
85
80
75
70
Temperature (Fahrenheit)
June
July
August
Month
Labadie (RM 58.4)
Howard Bend (RM 37.1)

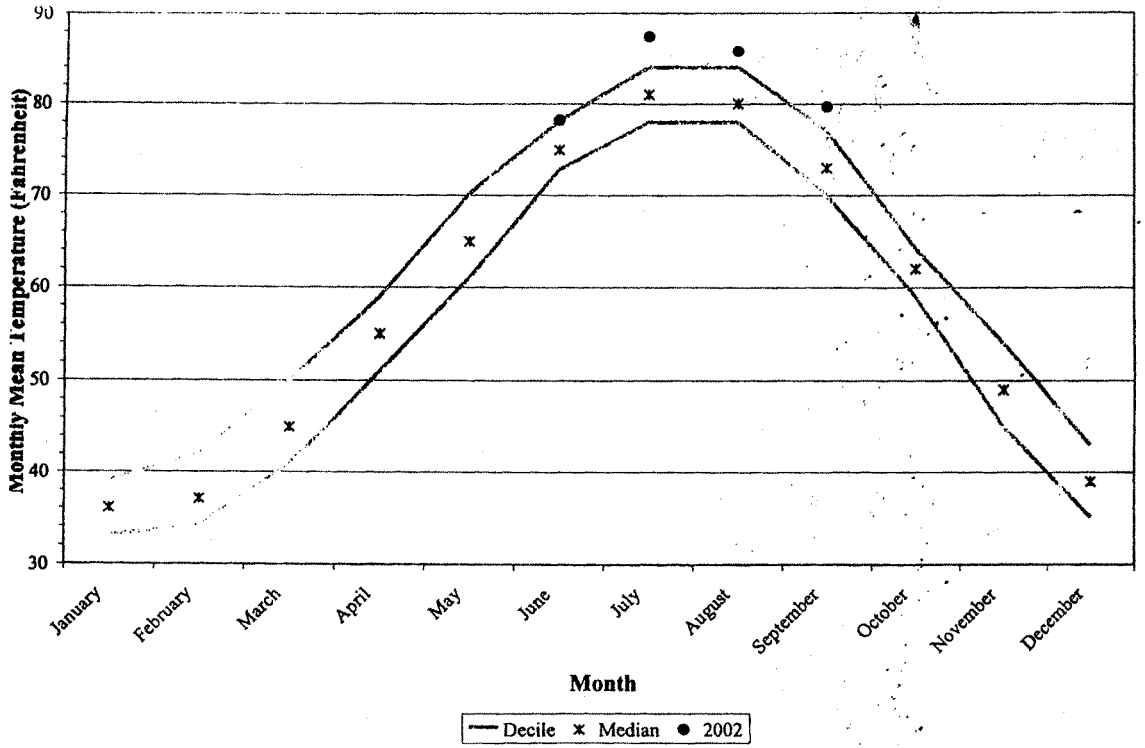
# Missouri River Intake Temperature
## at Howard Bend - River Mile 37.1
### Temperature in Degrees Fahrenheit

| | 2002 | 1930-2001 | | |
|---|---|---|---|---|
| **Month** | | **Lower Decile** | **Median** | **Upper Decile** |
| **June** | 78 | 73 | 75 | 78 |
| **July** | 87 | 78 | 81 | 84 |
| **August** | 86 | 78 | 80 | 84 |
| **September** | 80 | 70 | 73 | 77 |

Note: All Analysis Based on Monthly Mean Data

## Missouri River Temperature at Howard Bend - River Mile 37.1

### Summer 2002 and Historic Water Temperature Distribution (1930-2001)



**Testimony to**
**House Small Business Subcommittee on**
**Rural Enterprises, Agriculture and Technology**
**St. Joseph, Missouri**
**February 23, 2004**
**By**
**Kevin Keith, Chief Engineer, Missouri Department of Transportation**

There can be no doubt that Missouri's economy is tied to her two great rivers. Her two major cities are on the banks of them. Her richest farmland lies within their watersheds.

The Mississippi and Missouri Rivers are two of the nation's major waterways. They are magnificent assets to this state, as they are to the nation. The rivers have played a major role in the development of the central and western states. As we celebrate the bicentennial of Lewis and Clark's exploration or the West, it's here in Missouri that their historic journey began. River commerce along the mighty Mississippi opened the vast central part of the nation to industry and farming by giving people a practical, economical way to ship their goods.

I am not a scientist. I am not an environmental expert. As such, it is not my place to talk about the environmental impacts of reduced flow on the Missouri River. I really don't know whether changing the river's flow will help or harm endangered species. I can't comment on the effect of seasonal flooding on the state's farmers.

Here's what I know about the details of our two major river systems. Both river systems are vital to our state's economy. Both are critical assets in our multimodal transportation system. I do know that of the two, the Missouri River is the more endangered from my perspective as a transportation expert. And I know that what happens on the Missouri affects what happens on the Mississippi.

**Missouri River** – The Missouri River is controlled by a series of dams that form several pools for the intended purpose of flood control and navigation as mandated by Congress more than 50 years ago. The U.S. Army Corps of Engineers manages flows in the Missouri River through the operation of six large reservoirs located on the main stem of the river.

Approximately half of Missourians get their drinking water from the Missouri River. The system is designed to provide downstream flows to support an eight-month navigation season on the Missouri River from April 1 to December 1. Under normal conditions flows are released from Gavins Point Dam in South Dakota to support a nine-foot-deep navigation channel.

The benefits of support for navigation go beyond the navigation industry itself. If flows are adequate to support navigation, then all other downstream users have ample water to meet their needs. Downstream interests have built infrastructure and made business

decisions based on the system providing reliable flows throughout the year, especially during periods of water shortages. The Missouri River system is designed to hold water in reserve for release during droughts.

Under the authority of the Endangered Species Act, the U.S. Fish and Wildlife Service has mandated that releases from Gavins Point Dam be limited to 25,000 cubic feet per second from mid-June to the end of August each year starting in 2004. This will not support navigation on the Missouri River. To better understand the effect of this decision, one needs to understand how the navigators operate on the Missouri River.

When the navigation season opens in April, loaded barges move up river to their destination. This begins a cycle of loaded barges moving up and down river until they move off the river in November. Only a few specialized barges, such as asphalt carriers, move empty on the river. Most carry one load up the river, offload that and pick up a new load for the return trip.

Few businesses could survive economically if allowed to work only eight months of the year. Now the Fish and Wildlife Service is asking the barge industry to pull off the river for an additional two months each year. Adding to the burden, these two months fall in the middle of the industry's season. Operators cannot survive on the Missouri River under these conditions. To the navigation industry a split-navigation season is no navigation season on the Missouri River.

If the Fish and Wildlife Service is allowed to mandate flows lower than what is needed to reliably operate on the Missouri River, then one of the Congressionally authorized purposes—navigation—has been eliminated.

As I said earlier, I'm not a scientist. I'm an engineer. I know transportation. I am the chief engineer of the Missouri Department of Transportation. It is my job to give Missourians the best transportation system I can.

I know that transportation has an enormous impact on our state's economy. Whether it's airborne or waterborne transportation, roadway or rail transportation, it affects every Missourian's quality of life everyday. Here are what I see as the economic impacts of reduced water flow on our rivers.

➢ **Higher transportation costs will be passed on to consumers.** Inland waterway transportation provides competitive shipping rates, keeping truck and rail costs low.

Interruptions in navigation during peak season in 2002 and 2003 caused drastic reductions in tonnage moved by barge. Two major shippers, MEMCO Barge and Blaske, have already decided to not ship on the Missouri River in 2004. They did not feel confident that they could predict transportation costs.

Facilities are no longer investing in capital improvements at docks but instead are looking at investments to facilitate the use of other modes. The long-range effect of this shift will

be less competitive shipping rates as rail and trucking no longer have to compete with the more economical barge transport. Ultimately, consumers pay for the increased cost of shipping.

➢ **What happens on the Missouri River affects the Mississippi River.** Continued low flows on the Missouri River also affect the Mississippi River, the nation's major inland navigation river. At times, the Missouri River supplies as much as 60 percent of the Mississippi River flow. The past two years have shown us how lowering the Missouri affects the Mississippi. The Mississippi was closed just south of St. Louis for a short time because it was too low for safe navigation. The bottleneck effect from the confluence of the Missouri River to the confluence of the Ohio River makes this an issue for every state that ships on the Mississippi. It costs the industry approximately $8,000 per day for each barge that is waiting for river levels to rise.

➢ **Loss of tax revenue.** Missouri's inland water transportation industry produces $9 million in state and federal tax revenue every year. Missouri's inland water transportation industry employs nearly 1,400 people. As jobs disappear so does the tax revenue that is generated from those jobs.

➢ **Loss of even a single transportation option is bad for Missouri.** A great transportation system offers options. Missouri is, quite literally, at the crossroads of the nation. Many major parts of the national highway system intersect here. Trucks cross our state in huge numbers, taking advantage of our location. Our freight rail system supports commerce throughout the rest of the nation. Our waterways support commerce throughout the nation's midsection. Each of these transportation options plays a vital role in our state's economy. They sustain the national economy, too.

Our transportation systems are interdependent. A change in one causes changes in the others. For example, if waterborne commerce is impeded, rail and roadway traffic increase exponentially. Let me give you a sense of the impact the loss of river traffic has on our roads and freight rail systems.

Every river barge that cannot travel on the Missouri or Mississippi Rivers results in 15 more rail cars on a rail system that already is straining at or near capacity. Or, every river barge than cannot travel on our great rivers results in 60 trucks on our aging highway system. That's one barge. On the Mississippi River, the average tow moves approximately 15 barges. The loss of one tow with its barges would put 225 rail cars or 900 trucks on our already strained alternate systems. Multiply that by the number of river trips and you start to get a sense of the magnitude of the problem.

Here's another example from here in St. Joseph. Recently, the state invested almost $1 million in the dock here, with a local match of $350,000. The dock was completed in June 2002. Without doubt, the St. Joe Port has the newest and, with its additional infrastructure (mooring dolphins, deadmen, hardstand area, rail service), one of the best docks in Missouri. In its first year, 2002, almost 17,000 tons moved across the dock.

During this past navigation season, the port operator had scheduled five barges to offload at the terminal. The first arrived late due to the low flows that opened the season. The other four were never delivered. There was virtually no navigation north of Kansas City in 2003. Very little even made it to Kansas City. In 2003, that one barge, with its load of 1,165 tons was the only freight moved across the St. Joe dock.

Where did the other loads go? How did they get to their final destination? I don't know for sure, but the only two options were highway or rail.

As MoDOT's chief engineer, I have to ask whether the other modes can bear this burden. I have to say, given the state of our highways and bridges and the capacity of our freight rail system, they cannot. At least not without major infrastructure investments. And unfortunately, we do not have the funds we need to invest as much as we need to. That's a problem.

I know transportation. I know we need our waterborne system to become more robust, not less. We cannot take advantage of our state's position and natural assets if our waterways cannot be used.

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**U.S. House Small Business Subcommittee Hearing**
**"The Endangered Species Act's Impact on**
**Small Businesses and Farmers"**
**St. Joseph, MO**
**February 23, 2004**

**Remarks by Paul Davis,**
**Interstate Marine Terminals, Inc.**
**Boonville, MO**

Good morning, and thank you for allowing me the opportunity to share some comments with you regarding the impact of the Endangered Species Act on commercial navigation on the Missouri River.

I am Paul Davis, and I am the owner of a family owned barge terminal, located on the Missouri River at Boonville, Mo. Founded in 1971, Interstate Marine Terminals, ships and receives bulk commodities, primarily fertilizer, feed, grain, and salt, by barge, truck and rail. We are also partners with the Howard Cooper Regional Port Authority, the only State funded public use barge-docking facility on the Missouri River between St. Louis and Kansas City. We distribute products to some two hundred fifty wholesale customers in a 150 mile radius of Boonville. I have worked at our terminal in Boonville since 1974.

In July, 2003, a federal judge ordered the US Army Corps of Engineers to reduce Missouri River flows from July 15 to September 1, 2003. The court order was in response to arguments by conservation groups that high flows on lower portions of the river threaten the least tern, piping plover, and pallid sturgeon, which must be protected by the Endangered Species Act. As a result of the court-ordered stoppage of navigation on the Missouri River, the primary barge towing carriers cancelled much of the fall 2003 service to facilities such as mine. Prior to the stoppage, I had anticipated deliveries of 19 barges, representing 25,000 tons of fertilizer and grain for the fall of 2003. 18 of the 19 barges were cancelled because of the stoppage. As a result, my facility only received 1,300 tons by barge of the planned 25,000 tons in the fall of 2003. The other 23,700 tons was moved by truck and/or rail, with additional freight cost of $15.00 per ton average. $15.00 per ton additional freight adds approximately 9% to the average cost of fertilizer at Boonville, resulting in extra costs estimated at $355,000. This extra cost of doing business is passed on to farmers in higher fertilizer costs, and ultimately to consumers in higher food costs.

Additional "costs" that are incurred as freight is diverted from barges to trucks is in the form of additional wear and tear on highways, more pollution from truck fuel burning, and more tires going into landfills.

In addition to the negative economic impact experienced by my business last fall, which can be quantitatively measured, the long-term effect of the 15 year struggle over Missouri River flow has been to cause shippers to seek alternate freight modes, rather than to constantly deal with the uncertain future of Missouri River navigation. Due to the minimum service summer flows, my company is handling reduced barge tonnage in

highway salt, molasses, and grain. With the reduced flows, the lower barge drafts have made products un-competitive in my market area.

Due to the uncertain future of Missouri River navigation, I have observed neither construction of new facilities nor expansion of existing facilities on the lower river for many years. In 1988, when the Corps commenced the Missouri River Master Manual Review process, the Corps predicted that the review **would be completed in three years**. And yet, fifteen years later, we find ourselves no closer to a solution that everyone can live with than we were when the review began.

Just last week, I had a phone conversation with a manager in a company that produces a product I am interested in bringing in to mid-Missouri for distribution. When I told him that I owned a barge terminal on the Missouri River, he was silent for a moment, and then asked, "Isn't that the river that might not have barges in the future…are you sure we could even ship our product to you?" I am sure that any number of companies that might normally be interested in expanding into the Missouri market will not do so as long as the cloud of uncertainty caused by the ESA issue remains.

There is currently much debate in the US regarding the "outsourcing" of jobs to offshore locations such as India and China. In our increasingly global economy, an open marketplace will invariably seek out lower costs of production. One way to help prevent additional job loss, in my opinion, would be for the United States to seriously re-examine the Endangered Species Act. The ESA was passed over 30 years ago in a show of bipartisan good intentions, to help animals on the brink of extinction. But since that time, environmental groups have hijacked the act, turning it into a bludgeon by which they can enforce their vision of a development-free America. The ESA's capricious and uneven enforcement only underscores the utter bankruptcy of the law. The government spends so much of its time and money defending itself from specious litigation, mostly by environmental groups, that there's little time left to actually devote to flora or fauna. Currently, the ESA provides only penalties against non-compliant property owners and developers. The natural reaction to the threat of penalty is that some property owners remove or diminish habitat, rather than enhance, in an effort to prevent endangered species from habituating on their property. This is exactly opposite of the intention of the ESA. Rather than just penalizing those in non-compliance, the government should develop an incentive-based approach that rewards landowners with endangered species habitat enhancement. If this is not done, I believe endangered species recovery will continue to be a divisive issue that further erodes our ability to compete in the global economy.

Thank you.

**Statement Of**

**Chad Smith**
**Director, Nebraska Field Office**
**American Rivers**

**Before the**

**Subcommittee on Rural Enterprise, Agriculture, and Technology**
**Committee on Small Business**

**United States House of Representatives**

**Field Hearing: *The Endangered Species Act's Impact on Small Businesses and Farmers***

**February 23, 2004**

# STATEMENT OF CHAD SMITH
# DIRECTOR OF AMERICAN RIVERS' NEBRASKA FIELD OFFICE
# BEFORE THE SUBCOMMITTEE ON RURAL ENTERPRISE, AGRICULTURE, AND TECHNOLOGY
# COMMITTEE ON SMALL BUSINESS
# UNITED STATES HOUSE OF REPRESENTATIVES

February 23, 2004

**Introduction**

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to present testimony on the Endangered Species Act and its role in future management of the Missouri River. I am Chad Smith, Director of the Nebraska Field Office for American Rivers, a national conservation organization dedicated to protecting and restoring the nation's rivers. American Rivers has nearly 37,000 members across the country, and works in partnership with over 4,000 river and conservation organizations. We have nine field offices around the country, and work on a host of river conservation issues at the local and national level. This includes work on issues related to the Endangered Species Act, threatened and endangered species, and ecosystem protection and recovery.

American Rivers, through its *Voyage of Recovery*℠ campaign, is working with dozens of groups in the Missouri River Basin to: 1) establish a string of restored natural areas along the Missouri; 2) reform dam operations that sustain fish and wildlife and boost recreation and tourism opportunities; and 3) revitalize riverfronts in Missouri River communities to improve quality of life.

More than that, I come before you as a lifelong Nebraskan, hunter, angler, and conservationist. My roots are in the Platte River in Nebraska. I grew up duck hunting and catfishing on the Platte in central Nebraska, and those experiences have grown into a passion for hunting and fishing that stands to this day. As a hunter and angler, I spend a good deal of money every year on licenses, gear, travel, and other recreation-related expenditures, money that flows into local communities and small businesses that support hunting and fishing. Thousands upon thousands of other Americans do this every year as well, making hunting, fishing, and other outdoor recreational pursuits multi-billion dollar industries in this country.

In all cases, the expenditure of those dollars and the viability of the small businesses that cater to recreation and tourism depend on one common thread – a healthy environment. Outdoor recreation and tourism is largely centered on places that attract people to them – be they rivers, plains, forests, or mountains. In the case of the Missouri River, an immense opportunity to tap into that economic potential is being squandered. The health of the Missouri River is in dire straits, and the river is simply not the destination of choice of most people in the Missouri River basin. Most have turned their backs on the Missouri, and it is not living up to its economic potential or providing the kind of quality of life benefits we expect from a big river system.

Often, the Endangered Species Act (ESA) is invoked as a tool of last resort to prevent the continued decline in health of a natural system like the Missouri River. The focus is often on one or a few species, and those species receive much of the attention in the public policy debate. But, endangered and threatened species are mere indicators of greater problems in an ecosystem, and reflect that management changes are necessary to help not just particular endangered species, but ultimately all of the native species that inhabit the ecosystem and the people that depend on that ecosystem as well.

Over the past 15 years, the U.S. Army Corps of Engineers (Corps) has spent millions of federal taxpayer dollars analyzing potential changes in the operation of six large mainstem dams on the Missouri River. This process is part and parcel of the Corps' attempt to update and revise the Missouri River Master Water Control Manual (Master Manual), the guidebook used to operate the river's federal dams. As a part of that analysis, the Corps has evaluated dam reform options that incorporate more natural flows on the Missouri.

Natural flow restoration has been called for by an independent panel of the National Academy of Sciences, the U.S. Fish and Wildlife Service (Service), and all of fish and wildlife management agencies from the states in the Missouri River basin, including the Missouri Department of Conservation. The Corps itself has found that restoring more natural flows to the Missouri River will actually result in an annual net economic benefit of at least $8.8 million for the basin. Corps studies show this can be achieved without ceasing navigation on the lower Missouri River, without unduly impacting floodplain farmers along the river, and ensuring that water and power supplies are not affected.

Further, the economic options presented by a Missouri River that once again actually looks and acts like a river are endless. By making the Missouri River a destination for hunters, anglers, boaters, campers, hikers, and families, communities up and down the river can tap into limitless economic possibilities associated with outdoor recreation and tourism. Coupled with ongoing agricultural practices in the floodplain and other "traditional" uses, the Missouri River can truly become an economic engine for this basin.

So, as in so many cases, the ESA can be a tool to not just ensure a species avoids extirpation. The ESA is ultimately a tool that helps us to realize ways to better manage natural systems, link them more directly with our economic prosperity, and ensure we leave a lasting legacy for future generations. The acrimony that has followed the Master Manual revision process on the Missouri River is unfortunate and largely unnecessary. We now need to focus on how to deal with potential impacts of flow restoration, ensure no single person or group is unfairly given the burden of management changes, and begin implementing a new vision for the Missouri River and the valley through which it flows. The ESA is but one tool to help us toward that end.

**Basic Missouri River Biology and the Master Manual Revision**

Like all rivers, the driving force behind the mighty Missouri River was its "natural hydrograph" – the seasonal rise and fall of water. The Big Muddy experienced rising flows in the spring and early summer from melting snow and rain. Higher flows were followed by declining flows during the late summer and throughout the fall.

Today, these seasonal fluctuations are gone, replaced by stable flows to support commercial barge traffic. Fish and wildlife, people, and local communities have paid the price. Three native Missouri River species are on the brink of extinction, and more than 50 native species are listed by basin states or the federal government as rare, threatened, or endangered. Recreation on the river is given little priority in management decisions.

But the ongoing bicentennial of Lewis and Clark's "Voyage of Discovery" affords us the chance to help the Missouri again function like a river. The Corps is supposed to announce shortly how it intends to manage the Missouri River this year, as well as how it intends to change the Master Manual for dam management in the future. A change in operations now will help restore some of the Missouri's important natural functions, making it a better place for native species. And the Missouri River will become a recreation and tourism destination.

In November 2000, the Service released its Final Biological Opinion on Missouri River dam operations. That biological opinion came on the heels of at least two previous similar opinions and again concluded that the least tern, piping plover, and pallid sturgeon were likely to go extinct on the Missouri River if the Corps failed to change dam operations. The Service proposed several elements of a "reasonable and prudent alternative" intended to assist the recovery of those species. Key elements included:

- Increasing flows from Gavins Point Dam and Fort Peck Dam in the spring ("spring rise") when water conditions permit, and reducing Gavins Point Dam flows each summer ("split navigation season") to provide a semblance of the Missouri's natural rise and fall of water levels.
- Restoration of river and floodplain habitat.
- Reservoir unbalancing.
- Adaptive management of the river system.
- Intensive biological monitoring.

The Service's recommended changes were designed to prevent the extinction of three endangered and threatened species, but also would benefit all native Missouri River fish and wildlife and subsequently the many outdoor enthusiasts wanting to enjoy the river.

In its January 2002 report on the Missouri River titled *The Missouri River Ecosystem: Exploring the Prospects for Recovery,* the National Academy of Sciences concluded that:

> "Degradation of the Missouri River ecosystem will continue unless some portion of the hydrologic and geomorphic processes that sustained the pre-regulation Missouri River and floodplain ecosystem are restored – including flow pulses that emulate the natural hydrograph."

According to river biologists, the Service's recommended flow changes mimic key elements of the Missouri's historic flow patterns, including higher flows through mid-June and lower flows from mid-July through August. Federal, state, and university biologists note that this time frame encompasses the spawning period of most Missouri River native fishes, including pallid sturgeon, smallmouth bass, channel catfish, and paddlefish, and nest initiation by interior least terns and piping plovers.

In 2003, the Corps was supposed to abide by the Service's biological opinion and implement a period of lower flow in the summer. Because of the ongoing drought in the basin, the recommendation for increases spring flows was set aside until water conditions improve. The Corps failed to include a lower summer flow in its dam operation plan for the year 2003, so American Rivers, Environmental Defense, the Izaak Walton League of America, the National Wildlife Federation, and the Federation's affiliates from the states of Montana, North Dakota, South Dakota, Nebraska, Iowa, and Kansas filed suit against the Corps in federal court.

Our litigation was successful, and the Corps was ordered by a federal judge to comply with the ESA and lower flows on the Missouri for a short time in the summer. Then, in December 2003, the Service issued yet another biological opinion that again called for regular implementation of more natural flows on the Missouri River. As of this date, the Corps has failed to announce its final dam operation plan for 2004, how it plans to revise the Master Manual for future years, and whether it will respond not only to concerns related to endangered species but also the economic health of the basin.

The recommendation to return the river to a more natural hydrograph represents the best science-based option available for restoring the form and function of the Missouri River, and will significantly improve the ability of native Missouri River species to survive. Flexibility in river management options, as guided by biological monitoring through an adaptive management approach, is also key to ensuring the best results for fish and wildlife.

The time is now for change on the Missouri River. Some key facts that support this statement:

- **The science is solid.** In January 2002, the National Academy of Sciences released its three-year study of science along the river. The Science Academy concluded that "degradation of the Missouri River ecosystem will continue unless the river's natural water flow is significantly restored," and that restoring riparian habitat in the absence of dam reforms will be insufficient to halt the river's decline. In addition, natural resource professionals working for all the states along the river have concurred with the scientific foundation for the flow targets set by the Service in 2000.

- **The economy will benefit.** The National Academy of Sciences also concluded that Missouri River dam reforms will "enhance the valuable fishery resources...increase waterfowl populations...increase the abundance of largemouth bass...attract more anglers to the region...and result in marked increases in user-days for recreational fishing, commercial fishing, and hunting" and therefore may be "justifiable solely on the grounds that it represents an economic improvement" over current dam operations. Already, these activities amount to a greater than $85 million industry each year, in sharp contrast to the barge industry which has dwindled to less than $7 million each year.

- **The public supports change.** Of the 55,000 comments submitted to the Corps on its draft Environmental Impact Statement in 2001, 54,000 called on the Corps to restore more natural flows to the Missouri. Nearly all of the major newspapers in Missouri River basin states have editorialized numerous times in favor of restoring more natural flows to the Missouri.

- **The states support change.** Six of the eight governors in the Missouri River basin have formally recommended experimenting with flow changes to restore the river. Currently, the States of Nebraska and South Dakota have developed dam operation plans that incorporate more natural flows.

Thus, it is time for the Corps to update how it manages the Missouri's dams. This will help them avoid concerns related to endangered and threatened species, but will also ensure the Missouri River is managed in a way that allows local communities to fully capitalize on the river's economic potential.

Almost 200 years ago, the explorers Lewis and Clark traveled up the Missouri River, and their journals describe an abundance of fish and wildlife in and along the river that is unimaginable today. The once dynamic and meandering river has been subdued by dams and levees and many of the species found by the explorers along the river are slowly disappearing.

According to the Corps' own detailed analysis, moderate changes in dam operations can be made that would improve the river's health and boost local economies through increased recreation and tourism, while protecting "traditional" uses of the river like hydropower, navigation, floodplain farming, and flood control.

The Corps' ultimate decision will be a clear indication of whether science and economics rule the day, giving recreation and fish and wildlife interests equal treatment in river management, or whether a dwindling barge industry on the lower river will retain its stranglehold on the nation's longest and arguably most historic river.

**Economic Issues**
These long overdue dam reforms will not only avoid the extinction of three listed species and reverse the decline of many other species native to the Missouri but will also meet the long-term economic and environmental needs of Missouri River communities.

As the Corps' RDEIS demonstrates, implementation of more natural flows will:

- create new opportunities for recreation and economic development in riverside communities.
- support Missouri River barge navigation in the spring and fall, when more than 80 percent of farm-related is shipped.
- enhance Mississippi River barge navigation.
- not increase the risk of flooding.
- provide benefits to production agriculture in the Missouri River floodplain through enhanced groundwater levels and improved drainage in the summer months.

***Recreation***
The Missouri's native fish and wildlife species are not only a critical part of America's natural heritage, but are also the foundation of a growing river-recreation industry. More than 4 million people annually spend more than 10 million "visitor days" at developed recreation sites along the Missouri River, generating at least $84.7 million in annual economic benefits, according to

the Corps' Revised Draft Environmental Impact Statement (RDEIS).[1] Actual visitation and spending is actually much higher, but the RDEIS fails to measure recreation at undeveloped sites, underestimates spending on Missouri River recreation, excludes spending on food and lodging, and uses an improper methodology that narrowly links recreational use to river elevations.

Corps estimates of recreational use are based on visits to developed recreation sites such as marinas and ignores recreation at undeveloped sites, including bank fishing, sight-seeing, river festivals, private hunting clubs, fishing tournaments, and commercial boat tours. The Corps excludes the enormous economic benefits of the Lewis and Clark Bicentennial, and the role a healthy river can play in regional celebrations, including opportunities for hunting, fishing, camping, and sight-seeing. Federal, state, and private officials preparing for the bicentennial estimate that more than 10 million Americans will retrace the steps of Lewis and Clark between 2003 and 2006.

The Corps also underestimates the amount visitors spend when utilizing the Missouri River by underestimating daily spending, and by excluding spending on lodging and food. The Corps estimated more than a decade ago that visitors spend $32 per day while visiting the Missouri, but state estimates are significantly higher. A 1990 study of Missouri River recreation in Montana concluded that per-day spending ranged between $40 and $66. A similar survey of Missouri River recreational use in North Dakota found that per-day spending ranged from $49 to as much as $117 for out-of-state visitors. Studies also suggest that the daily value of fishing is species-dependent: visitors spend more to catch walleye than they spend to catch catfish.

States have concluded that Missouri River recreation generates substantially more annual economic benefits than the Corps' analysis:

- Three million visits were made Missouri River recreation sites in South Dakota in 2001, including over 500,000 angler days amounting to $40 million in economic benefits, according to state officials.
- Fishing on South Dakota's Lake Oahe alone yielded an average of $11.4 million per year in economic benefits from 1999-2002, according to state officials.
- Missouri River recreation and tourism generated $165 million in annual economic benefits in North Dakota, according to state officials.
- Use of the Missouri River in Nebraska generates as much as $364.5 million in annual economic benefits, according to state officials.

With the flow changes recommended by the Service, recreational opportunities on the lower river would be greatly increased. Exposed sandbars and shallower, slower water, coupled with restored habitat, would make the lower Missouri River much more inviting and accessible for fishing, camping, birding, recreational boating, and other forms of recreation.

Lower summer flows also mean higher water levels in the reservoirs – benefiting anglers, boaters, and recreation-dependent businesses in the upper basin. And, releasing more water from

[1] U.S. Army Corps of Engineers. 2001. *Missouri River Water Control Manual Review and Update: Revised Draft Environmental Impact Statement*. Northwestern Division. Portland, OR.

Gavins Point and other Missouri River dams in the spring and less in the summer would improve the fisheries and the natural habitat of the free-flowing river sections below the dams.

Recreation already generates at least $90 million in annual economic benefits for the basin, but a restored Missouri River would boost that figure significantly. Revitalizing the Missouri River would provide additional outlets for recreation and tourism and would create many new economic opportunities in places like Bismarck, North Dakota; Yankton, South Dakota; Nebraska City, Nebraska; and Boonville, Missouri. This is a perfect opportunity for small businesses to start and flourish along the Missouri, greatly enhancing the economic health of the states in the basin.

***Navigation***

Restoration of more natural flows as recommended by the Service will also support Missouri River navigation during the spring and fall – when more than 80 percent of farm-related cargo is shipped – and will enhance navigation on the Mississippi River. Marginally reducing the meager amount of Missouri River barge traffic will not affect highway and rail transportation costs. Even the Corps concedes the marginal economic benefit of Missouri River barge navigation – less than $7 million annually, according to the RDEIS –, although the National Academy of Sciences found that actual benefits are closer to $3 million annually and that net benefits are eliminated when flows reach 30,000 cfs.[2]

By contrast, the RDEIS estimates that hydropower generates $741 million in annual economic benefits, water supply generates $610 million in annual economic benefits, and flood control generates $410 million in annual economic benefits. Nevertheless, the Corps has consistently managed the Missouri's mainstem dams primarily to benefit barge navigation – at the expense of every other economic and environmental use of the Missouri. Even recreation produces at least 12 times as many economic benefits as navigation despite historic river management that has decimated the river's flora and fauna and limited access to boat ramps. Recreation between Sioux City and St. Louis alone produces twice as many economic benefits as Missouri River barge navigation, according to the RDEIS. Only 1.5 million tons of commercial cargo was shipped annually on the Missouri during the 1990s, far less than the 15 million tons predicted by the Missouri River Navigation Commission in 1929. According to the Corps and the U.S. Department of Agriculture, only 0.3% of all the grain harvested each year in Nebraska, Iowa, Kansas, and Missouri combined moves by barge on the Missouri River.

Despite the insignificance of Missouri River navigation, the Service's flow recommendations would provide sufficient flows for commercial navigation between April 1 and mid-June, and from early September through November. Less than 20 percent of farm-related cargo is shipped in July and August, according to the Corps. In essence, the Missouri River already operates in a "split navigation season" format – fertilizer is moved upstream during spring, and grain is shipped downstream in the fall, and the amount of grain shipped downstream is fixed by the amount of fertilizer moved upstream.[3] The presence of empty fertilizer barges from spring hauls

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[2] National Research Council. 2002. *The Missouri River Ecosystem: Exploring the Prospects for Recovery.* National Academy Press. Washington, DC.

[3] Baumel, P. 1998. *The Competitive Benefit of the Missouri River? A Review of "Rail Rates and the Availability of Barge Transportation: The Missouri River Region".* Environmental Defense Fund. Washington, DC.

is the only factor that makes shipping some corn and soybeans on the river economically viable.[4] There is no evidence presented in the RDEIS that formal implementation of this informal custom would jeopardize Missouri River navigation.

Flow restoration would have no impact on highway and rail rates, and the RDEIS does not reflect on the Corps' flawed 1994 competitive rate study. Agricultural economists from Iowa State University, the University of Nebraska, and Kansas State University concluded that the competitive rate study is "likely meaningless" and "suffer(s) from several defects."[5,6] Low levels of Missouri River barge traffic have no measurable impact on transportation rates in the region, and the Corps has provided no evidence in the RDEIS that suspending summer barge navigation would increase transportation rates or threaten the long-term prospects of commercial navigation on the Missouri.

Last summer, some commentors raised the fear that lower summer flows would harm Mississippi River navigation, but the fact is that the Corps concluded that implementation of the Service's more natural flow recommendations would actually enhance Mississippi River barge navigation between St. Louis and Cairo, a historic "bottleneck" that naturally suffers from low fall water levels. Many factors contribute to "lost navigation efficiency," including shallow water forcing operators to spread their cargo across more tows. The Corps estimates in the RDEIS that "lost navigation efficiency" between St. Louis and Cairo annually costs the barge industry $45.3 million.

Increasing the Missouri River's contributions to the Mississippi River during the fall would allow barge operators to put heavier loads on fewer barges and move through locks more quickly. Under the CWCP, constant amounts of water are released for a small amount of barges on the Missouri River for the entire 8-month navigation season. Thus, little water is available to the Mississippi when that river needs it most.

By contrast, reducing summer flows increases the water available for fall flows into the Mississippi, which supports Mississippi River navigation. The Corps' analysis shoes that implementing the 2000 biological opinion cuts Mississippi River congestion losses by more than 16 percent – saving an estimated $7.3 million each year.

This savings for the Mississippi River barge industry is greater than the annual economic benefit of the entire Missouri River barge industry. In addition, Mississippi River barge traffic, unlike Missouri River barge traffic, has an economic impact on truck and rail shipping rates by holding down transportation costs for Midwest farmers.

The tradeoff between Missouri River barge support and Mississippi River barge support has long been known. Agricultural economists from the basin continue to point out that particularly in droughts, managing flows on the Missouri River more naturally – which better supports

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[4] *Ibid.*
[5] *Ibid.*
[6] Babcock, M. and D. Anderson. 1999. *An Evaluation of the U.S. Army Corps of Engineers' Measurement of the Economic Benefits of Missouri River Navigation.* Environmental Defense Fund. Washington, DC.

Mississippi River navigation – could result in "substantial benefits for agriculture in (the form of) lower rail rates."[7]

***Flooding and Interior Drainage***

The Corps' own analysis shows that restoring more natural flows will not increase the risk of flooding, and will provide benefits to production agriculture in the Missouri River floodplain through enhanced groundwater levels, in the spring and fall, and improved drainage in the summer months due to lower flows in the Missouri River. The benefits are clear from the RDEIS analysis, even though the Corps fails to analyze additional benefits for drainage of floodplain farmland and potential mitigation for the few farm acres that would continue to have drainage problems.

According to the RDEIS, the dam management option that most closely resembles the Service flow recommendations from the 2000 biological opinion will provide $407.7 million in annual flood control benefits, or 98.9 percent of the benefits now provided by the current water control plan.[8] As the RDEIS states, the impacts of this alternative on overall flood control benefits are "insignificant."[9] The RDEIS fails to note that from a flood control perspective, only lands located between the river and the levees lining the Missouri River would be affected by dam releases. And, the RDEIS fails to note that the Reasonable and Prudent Alternative proposed in the Service's Final Biological Opinion would only be implemented, on average, once in every three years. The Final Biological Opinion provides the Corps ample flexibility to postpone spring dam releases if weather conditions would increase the risk of flooding.[10]

The RDEIS incorrectly suggests that flow restoration alternatives will have only negative impacts on the drainage of most floodplain farmland and groundwater levels. Both the RDEIS summary and main report fail to highlight the potential benefits of elevated groundwater levels in the spring and fall for crop growth, and fail to highlight the benefits of low summer flows on the drainage of floodplain farmland. The RDEIS instead focuses on the tiny fraction of farmland negatively impacted by higher groundwater levels in the spring and fall, and fails to note that farmland impacted by higher groundwater levels is typically farmed sloughs, chutes, and oxbow lakes that suffer from poor drainage regardless of river conditions. Less than 200 acres of the six levee districts analyzed by the Corps would be negatively impacted by higher spring and fall releases, increasing flood damages by approximately $650,000 a year.[11] By contrast, the potential benefits of higher groundwater levels in the spring and fall and improved drainage conditions in the summer on a much greater number of farmland acres in the Missouri River floodplain are not calculated.

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[7] *Ibid.*

[8] U.S. Army Corps of Engineers. 2001. *Missouri River Water Control Manual Review and Update, Revised Draft Environmental Impact Statement.* Northwestern Division. Portland, OR.

[9] *Ibid.*

[10] U.S. Fish and Wildlife Service. 2000. *Final Biological Opinion on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project, and Operation of the Kansas Reservoir System.* Regions 6 and 3. Denver, CO and Ft. Snelling, MN.

[11] This number is inflated by the Corps' analysis, which can not segregate groundwater impacts and interior drainage impacts.

The RDEIS also fails to consider alternatives that will offset the drainage impacts on the acres of land modestly impacted by flow changes, such as the installation of pumps, the acquisition of easements, or conversion to water-tolerant crops like trees and hay production. In particular, the RDEIS ignores the high likelihood that floodplain farmland impacted by dam reforms would be acquired from willing sellers through programs like the Corps' Missouri River Fish and Wildlife Mitigation Project. In fact, the Corps has not determined whether any of the land potentially impacted by higher spring and fall releases has already been acquired, leased, or converted to other uses. Finally, the Corps has not explored whether increasing dam releases after the harvest of floodplain crops can be accomplished without increasing the likelihood of ice damage.

***Hydropower***

Dam operations incorporating flow changes provide a 2% increase in the total economic hydropower benefits over the CWCP, according to the RDEIS. Flow changes also increase marketable capacity for the Western Area Power Administration (WAPA) in both the summer and winter seasons. Thus, in general, restoring more natural flows to the Missouri River will result in an overall positive impact on the production of hydropower on the Missouri River system. This conclusion was found to be accurate in a recent report on Missouri River hydropower by noted hydropower economist David Marcus.[12]

However, the RDEIS' further suggestion that lower summer flows might result in a loss of firm-power revenue on the Missouri River system of up to $29.7 million is inaccurate. Those numbers are based on an analysis completed by WAPA, and are rooted in energy prices from January 2001, when energy prices were at an all-time record high due to the California energy crisis.[13] Using more typical current prices from June 2002, the prediction of revenue loss falls from roughly $30 million to around $3 million for the flow change alternatives.[14]

Even for customers who buy all of their electricity from WAPA, flow restoration would only increase costs from 1.7 cents per kWh to 1.74 cents, or about 2 percent.[15] Customers buying only 10 percent of their electricity from WAPA might experience a 0.1 percent increase.[16]

The price of retail electricity also includes the cost of transmission, distribution, marketing, metering, and billing, none of which would be affected by Missouri River flow changes. This means that retail price increases due to flow changes would be even less than those for WAPA firm power customers. Without factoring in the positive impacts of increased capacity, the average rate increase for the region if flow changes were implemented would be about 1.5 cents per month for a typical residential customer.[17]

The original WAPA analysis ignores the value of increased marketable capacity on the Missouri River system that would come from restoring more natural flows to the river. If this were factored in, it is likely that flow changes could result in positive economic impacts of $8 million

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[12] Marcus, D. 2002. *Energy impacts of re-operating the Missouri River dams.* American Rivers/Environmental Defense. Berkeley, CA.
[13] *Ibid.*
[14] *Ibid.*
[15] *Ibid.*
[16] *Ibid.*
[17] *Ibid.*

to $16 million annually.[18] Also, the RDEIS fails to discuss the fact that under an alternative incorporating more natural flows, the loss of hydropower during extreme drought and flood events is reduced as compared to the CWCP. Not factoring this "insurance value" during extreme events into the analysis likely contributes to an overestimation of the negative impacts of implementing flow changes.

The estimated revenue loss resulting from the implementation of flow changes can also be mitigated by opportunities to increase summer revenues at other Missouri River projects such as Ft. Peck Dam. For example, flat releases out of Ft. Peck during the summer of 2001 were marketed to offset power shortages due to drought in the Columbia Basin, generating substantial revenue for WAPA. This occurred while average releases during the summer of 2001 out of Gavins Point Dam were 23,000 cfs. This type of intra-system activity can be used to help offset any potential negative impacts of restoring more natural flows to the Missouri.

Another issue related to power production is the presence of generating plants along the lower river, both nuclear and coal-fired. In both cases, the generating plants have maximum ambient temperature requirements for river water intake, as well as maximum temperature requirements for discharge of thermally-heated water back into the Missouri River. Power plant representatives have indicated that low summer flows are not necessarily an operational problem, but that high summer flows, which are a byproduct of current operations, create more of a problem than low flows.

Nevertheless, power plant representatives do voice a concern with low summer flows relating to the constraints of current National Pollution Discharge Elimination System permits. To avoid violating the requirements of these Clean Water Act permits, generating plants along the river must avoid releasing water back into the river at too high of a temperature. In the RDEIS, the Corps asserted that the "potential" exists to limit the output of downstream powerplants by an average of up to 278 Mw in July.

Further study shows this estimate is not accurate. According to the Corps, 9 percent of the alleged impact is upstream of Gavins Point Dam, which would in reality not be affected by low summer flows out of Gavins Point Dam. More importantly, the Corps apparently ignored the actual permits for the downstream power plants.[19] A vast majority of the impacts reported in the RDEIS stem from operations at the Neal power station in Iowa. A review of the permit for this power station shows that discharges would not violate heat limits even if river flows reached 10,500 cfs, much lower than the 21,000 cfs flows recommended by the Service in 2000.[20]

Research done by the Nebraska Game and Parks Commission, the University of Nebraska, and others in the 1970s determined that existing thermal discharges in the summer were not having significant biological impact on the Missouri River.[21] This suggests that even if low flows did

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[18] *Ibid.*
[19] *Ibid.*
[20] *Ibid.*
[21] Hesse, L., G. Hergenrader, H. Lewis, S. Reetz, and A. Schlesinger. 1982. *The Middle Missouri River: A Collection of Papers on the Biology with Special Reference to Power Station Effects.* The Missouri River Study Group. Norfolk, NE.

result in some thermal impacts, current temperature limits on return water could potentially be modified, or permit variances could be granted, allowing power plants to operate fully without causing significant negative impacts on the ecology of the Missouri River. However, this situation warrants further analysis through updated monitoring in an adaptive management process on the Missouri. The RDEIS also fails to explore other means of dealing with thermally-heated return water, like pumping this water first into created wetlands where temperature problems could be abated.

**Endangered and Threatened Species on the Missouri River**
High spring flows provide spawning cues for many fish species found in the Missouri, including the endangered pallid sturgeon. These high flows also build new sandbars on the river and scour vegetation from existing sandbars. In addition, high flows wash vegetation and other organic matter into the Missouri, forming much of the food base for river species. Low flows are also critical for fish species like sturgeon. Recently spawned fish are poor swimmers and are easily carried by water currents. Many larval fish depend on easy access to shallow, slower-flowing areas where they can feed and avoid predators. And, low flows expose the sandbars created and cleaned during the high-flow period to make them usable as nesting habitat for birds like the endangered interior least tern and the threatened piping plover.

Current Missouri River dam operations fail in two ways: 1) by failing to provide sufficiently high spring releases to create adequate sandbar habitat or to serve as a reproductive cue for native fish species, and 2) by failing to provide sufficiently low summer flows to expose sandbars and to provide suitable shallow-water habitat for larval fish species, including larval pallid sturgeon.

As the Service's biological opinion notes, the availability of habitat and the health of Missouri River fish and wildlife populations are shaped by the timing, variability, and amplitude of the natural hydrograph, and dam releases continue to serve as a master variable.[22] The annual rise and fall of the Missouri River is essential to the health of large floodplain river ecosystems like the Missouri, according to the National Academy of Sciences. The river's "flood pulse" adds organic matter and nutrients to the river; fuels the production of floodplain plants and resets plant succession; and provides a reproductive cue for many species adapted to the river's fluctuations, according to the Academy report. "Fish spawning, insect emergence, and seed dispersal are commonly triggered by rising waters," the Academy wrote.[23]

***Pallid Sturgeon***
The flow recommendations contained in the 2000 biological opinion would improve river conditions for the Missouri's native fish species, preventing the extinction of the pallid sturgeon and reversing the decline of many other native fish species.

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[22] U.S. Fish and Wildlife Service. 2000. *Final Biological Opinion on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project, and Operation of the Kansas Reservoir System.* Regions 6 and 3. Denver, CO and Ft. Snelling, MN.
[23] National Research Council. 2002. *The Missouri River Ecosystem: Exploring the Prospects for Recovery.* National Academy Press. Washington, DC.

In particular, more natural flows would provide a "spawning cue" approximately once in every three years, according to the RDEIS. By contrast, the current water control plan provides a spawning cue less than once in every ten years.

Sturgeon reproduction is closely tied to rising flows in the late spring and early summer – a pattern that has been eliminated to provide steady flows for barge traffic. Sturgeon were once plentiful in the Missouri River, growing to lengths greater than six feet, weighing more than 80 pounds, and supporting a robust commercial fishing industry. They have occupied the Mississippi and Missouri River basins for more than 300 million years, according to some estimates. But the Missouri's sturgeon population has been nearly driven into extinction in less than 50 years.

Since 1990, there has been no documented evidence of natural recruitment of pallid sturgeon on the Missouri River, meaning no new young sturgeon are surviving to become members of the reproductive adult population. Most of the sturgeon remaining in the Missouri are mature adults and may only have a few more opportunities to spawn. Because sturgeon only breed occasionally and only under optimal conditions, the chances of natural reproduction decline each year that dam reforms are delayed and the reproductive cues provided by rising spring flows are postponed. The Missouri's few remaining female sturgeon may only produce eggs during one or two more spawning events.

Ongoing delays by the Corps steadily reduce the likelihood that the Missouri's few remaining sturgeon will successfully reproduce. Current dam operations provide suitable spawning conditions only once every 10 to 11 years above Kansas City and only once every 5 to 6 years below Kansas City. Although the fish have long life spans, they have relatively low capacity for population increases.

The absence of low flows is also a serious threat to the existence of the pallid sturgeon. Once spawned, fish larvae drift in search of suitable shallow water habitat. In the past, roughly 100 acres of shallow-water habitat was available in each river mile during the summer months, providing habitat for larval sturgeon. Today, about 1 acre is available in each river mile. Reducing summer dam releases, as has been proposed by the Service, would increase shallow water habitat to about 8 acres per mile, providing critical habitat for larval pallid sturgeon.

A common claim made by advocates of status quo Missouri River dam operations is that even if dam release are modified to provide higher flows in the spring to serve as a spawning cue, pallid sturgeon will not reproduce because of the lack of appropriate gravel substrates for spawning in areas such as the National Recreational River stretch below Gavins Point Dam or the lower river. First, there is no documented, definitive scientific information that supports the notion that pallid sturgeon spawn exclusively on gravel substrates. Second, exhaustive research done through the river-wide Benthic Fish Study completed in 2001, *Population Structure and Habitat Use of Benthic Fishes Along the Missouri and Lower Yellowstone Rivers*, shows that there is indeed gravel substrate below both Ft. Peck Dam and Gavins Point Dam, which are priority reaches for the pallid sturgeon. The Benthic Fish Study shows that in fact, there is a greater abundance of

gravel in the Missouri River below Gavins Point Dam (7.1%) than below Ft. Peck Dam (5.1%), and that there is a comparable amount of gravel in the lower river below Sioux City (5.0%).[24]

In addition to providing sturgeon a chance for survival, more natural flows would also reverse the decline of many of other native fish species. Paddlefish, blue sucker, shortnose gar, and a variety of chubs and shiners considered rare by state officials would benefit from restoration of some semblance of the river's natural hydrograph. Restored flows would also provide significantly greater benefits to Missouri sportfishing. For example, a healthier river would significantly improve reservoir fish production, and would greatly improve sportfishing options on the lower river.

***Interior Least Terns and Piping Plovers***

Flow restoration is also necessary to avoid the extinction of the endangered interior least tern and the threatened piping plover. In its 2000 biological opinion, the Service concluded that current dam operations "jeopardize the continued existence of the endangered interior least tern and threatened piping plover because (dam) operations eliminate essential nesting habitat."[25] This conclusion was reached previously by the Service in both a 1990 Final Biological Opinion and a 1994 Draft Biological Opinion.

Sandbars free of vegetation provide critical nesting habitat for least terns and piping plovers, and the reproductive success and failure of these rare shorebirds is directly correlated to the abundance or absence of sandbar habitat. The amount and availability of sandbar habitat in the summer is directly linked to high spring dam releases and low summer dam releases. Sandbars are created when dam releases are increased in the spring, scouring the river's bottom and banks. As dam releases decline during the summer, the sandbars remain exposed, and the shallow water near sandbars provides important feeding habitat for nesting birds and chicks.

The Service listed the interior population of the least tern as an endangered species in 1985. Least terns were once a common species along the Missouri River. During their exploration of the Missouri River, Lewis and Clark found the birds nesting frequently, particularly along the lower river. Today, terns breed primarily on the relatively free-flowing river stretches that remain. According to Corps data on terns compiled since 1986, over 90% of terns on the Missouri River nest on riverine sandbars.

Interior least tern reproduction is closely tied to the spring rise and subsequent lowering of summer flows that used to characterize the Missouri River. Least terns prefer to nest on sandbar islands that are largely free of vegetation that can hide predators. High spring flows are necessary to build new sandbars to scour existing sandbars of vegetation. Because least terns nest close to water, rising water levels after nest initiation will destroy the nests. The Service has consistently found that existing Missouri River water management has resulted in the loss of

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[24] Galat, D., M. Wildhaber, and D. Dieterman. 2001. *Spatial Patterns of Physical Habitat: Volume 2: Population Structure and Habitat Use of Benthic Fishes Along the Missouri and Lower Yellowstone Rivers.*

[25] U.S. Fish and Wildlife Service. 2000. *Final Biological Opinion on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project, and Operation of the Kansas Reservoir System.* Regions 6 and 3. Denver, CO and Ft. Snelling, MN.

thousands of acres of sandbar habitat, significant vegetative encroachment on remaining sandbars, and direct flooding of tern nests in a manner that kills eggs and chicks.

Least terns also depend on productive foraging habitats, both immediately prior to breeding and within a short distance of the nest. Good foraging habitat is critical to the energy reserves needed for successful nesting. Sloughs, side channels, tributaries, and other shallow water habitats "produce the fish and benthic invertebrates that terns and plovers, respectively, depend on for food."[26] Fish and invertebrate reproduction also depends on a more natural river flow pattern.

Like the least tern, the piping plover received federal protection in 1985. Naturalists once found the piping plover common in the central United States. Since that time, the population has decreased over most of its range, and the plover has vanished as a nesting species in many areas. Because a critical source of the plover's ongoing decline is the loss of essential habitat, the failure to protect and restore nesting habitat will contribute the species' extinction.

Piping plover nesting behavior is similar to the least tern. Like the tern, the plover relies on sparsely vegetated sandbars and nests in virtually the same areas as the tern. The impacts of current Missouri River dam operations on piping plovers are therefore largely identical to those identified for the least tern. Current operations of the Missouri River system have destroyed much of the piping plover's essential nesting habitat. According to the Service, these losses "are significant and threaten the survival and recovery of the plover."[27]

In the early 1990s, the Service established reproductive goals necessary to restore stable populations of terns and plovers on the Missouri River system. Recovery fledge ratios of 0.7 for terns and 1.44 for plovers were established to provide guidance on the status of the two birds on the Missouri River. Prior to 1998, the Corps consistently failed to meet these reproductive goals. Between 1986 and 1999, for example, the average fledge ratio (the number of chicks fledged per adult pair) for the least tern was 0.65 and for the piping plover was 0.80. Nest success for terns during that same time was only 43.3 percent and was only 43.6 percent for plovers.

Unusually high dam releases in 1997 established the clear connection between the presence of clean sandbars and successful tern and plover reproduction. Until dam releases were increased and adequate sandbar habitat created, the Corps had never met legally-mandated reproductive goals for the least tern and piping plover. During 1997, the Missouri River system experienced record runoff, resulting in sharply higher flows on the river at critical periods. The following summer (1998), more normal flows revealed a dramatic increase in the availability of clean, high-elevation sandbars in some of the river's more natural segments like the National Recreational River stretch below Gavins Point Dam for nesting by terns and plovers. That summer, for the first time on record, both the interior least tern and the piping plover met their recovery fledge ratios. Many of those sandbars have persisted on the river's more natural segments, and as a result, terns and plovers have more consistently met their recovery fledge ratio since 1997.

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[26] *Ibid.*
[27] *Ibid.*

However, the sandbars created by the high runoff of 1997 are continually eroding and being covered by vegetation. Although the terns and plovers have continued to meet their recovery fledge ratios, the numbers are slowly declining as the sandbars disappear or become unusable. For example, the least tern fledge ratio declined from 1.73 in 1998 to 1.06 in 2001, and the plover fledge ratio declined over the same period from 1.61 to 1.38.[28] With reproductive success declining, and since the CWCP does not provide rising flows in the spring to build and scour sandbars or lower flows in the summer to expose sandbars, the Corps will soon once again fail to meet the required reproductive goals for both birds unless dam releases are increased and new sandbars established.

Restoring more natural flows increases tern and plover nesting habitat on the Missouri River by 74% over the CWCP, according to the RDEIS. This is the largest increase in tern and plover habitat among all of the modeled alternatives in the RDEIS. In particular, this alternative includes increased habitat below Garrison, Ft. Randall, and Gavins Point Dams, which have been identified by river biologists as the priority reaches for terns and plovers on the Missouri River.

**General Considerations and Conclusion**

The Corps has not identified any alternative other than the flow changes required by the Service's 2000 biological opinion that would lead to the recovery of listed species, reverse the decline of the Missouri's other troubled wildlife, and boost local economies through increased recreation and tourism. In particular, expansion of the Missouri River Fish and Wildlife Mitigation Project, or other measures that restore habitat, are not by themselves measures that avoid jeopardy or provide such a boost to recreational opportunities.

In light of the historic destruction of Missouri River habitat by the Corps,[29] we support proposals to accelerate the restoration of floodplain and aquatic habitat, including the expansion of the Missouri River Fish and Wildlife Mitigation Project. We urge the Corps to quickly expand the Mitigation Project, and to expand the project's focus on aquatic habitat restoration. However, habitat restoration alone will not meet the Corps' legal duties under the ESA. The National Academy of Sciences concluded that current habitat restoration efforts on the river are "insufficient to noticeably recover ecological communities and fundamental physical processes in the Missouri River ecosystem."[30] Further, the Academy went on to conclude the following:

> "Degradation of the Missouri River ecosystem will continue unless some portion of the hydrologic and geomorphic processes that sustained the pre-regulation Missouri River and floodplain ecosystem are restored – including flow pulses that emulate the natural hydrograph…The current dam and reservoir operation… to provide a steady and reliable 9-foot deep navigation channel… run(s) counter to

[28] U.S. Army Corps of Engineers. 2001. *Results of Monitoring of Interior Least Tern and Piping Plover Nesting on the Missouri River system, 1986-2001.* Omaha District. Yankton, SD.

[29] The Corps' channelization of the Missouri eliminated nearly all of the river's sloughs, side channels, and sandbars, including more than 90 percent of the Missouri's islands and adjacent wetlands and 97 percent of the Missouri's sandbars between Sioux City and St. Louis. Corps channelization cut off most of the lower Missouri from the river's floodplain, contributed to an 80 percent decline in the vegetation and insects available to aquatic life, and helped reduce suspended sediment loads by more than two-thirds.

[30] National Research Council. 2002. *The Missouri River Ecosystem: Exploring the Prospects for Recovery.* National Academy Press. Washington, DC.

> established river science, in which a large degree of natural hydrograph variability is essential to biological productivity and species richness."[31]

Without flow restoration, physical habitat restoration efforts will fail to achieve a meaningful level of ecosystem health, according to the Academy report. As the Final Biological Opinion and the Science Academy report repeatedly demonstrate, the availability of habitat and the health of Missouri River native species are shaped by the frequency, duration, magnitude, timing, and variability of the natural hydrograph, and dam releases are a driving variable controlling flows on the river. Until dam operations are reformed to include higher spring dam releases and lower summer dam releases, listed species will creep inexorably closer to extinction and additional species will be listed as endangered and threatened. At the same time, we lose the opportunity to restore a more natural river and halt the ecosystem degradation that continues to harm communities and businesses along the Missouri River.

The recommendations of the Service in the 2000 Final Biological Opinion have been described by the Missouri River Natural Resources Committee as "biologically sound and scientifically justified."[32] According to the RDEIS, the alternative that most closely resembles these flow recommendations outperforms all of the other alternatives in nearly all of the analyzed environmental categories. From a biological perspective, restoring more natural flows as the Service recommended in 2000 is the alternative that will lead to the most meaningful restoration of the Missouri River's form and function.

As its own analysis shows, by complying with the ESA the Corps can provide substantial environmental, recreation, and economic gains for the Missouri River basin in comparison to current operations. The flow changes recommended by the Service in 2000 combine sound and, in some cases, legally required fish and wildlife objectives with improvements in the economies of both the Missouri River basin and the nation. Traditional uses of the river will remain viable, yet the Missouri will more adequately support native fish and wildlife, a variety of recreational opportunities, and economic growth, and will better balance the needs of the upper basin and lower basin states.

I would like to thank the Subcommittee for this opportunity to provide written testimony on the Endangered Species Act and Missouri River management. If any Members of the Subcommittee have further questions, I would be happy to respond in writing, or I may be reached by telephone at (402) 730-5593 or e-mail at csmith@amrivers.org.

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[31] *Ibid.*

[32] Missouri River Natural Resources Committee. May 21, 2001. Letter to Interior Secretary Gale Norton.

MFA INCORPORATED

201 Ray Young Drive
Columbia, MO 65201-3599
Phone: (573) 874-5111
www.mfa-inc.com

My name is Bruce Hanson. I am Vice President of Transportation and Distribution for MFA Incorporated. MFA is a regional agricultural cooperative serving 45,000 members in several Midwest states. I am here to testify on the impact the Endangered Species Act has on our farmer-owners and the agricultural economy.

Farmers pay retail prices for inputs and sell their output at wholesale prices. They pay the freight both ways. Transportation costs dictate market access and profits. Reliability and consistency is critical. For the past two years, and apparently this coming season, the Missouri River has been neither.

MFA has facilities to receive fertilizer and ship grain on the Arkansas, Mississippi and Missouri Rivers. We move over 10,000,000 bushels of grain and 500,000 tons of fertilizer via the river system. We calculated the following impact to our members based on our tonnage moved on the Missouri River. One 8'6" draft barge holds on average, 1,500 tons. That's equivalent to 15 rail cars or 60 trucks. Railroads are at capacity. We have averaged 15-30 day delays in receiving rail cars since November and our highways and bridges are in need of major repair and are congested.

The gulf coast export market is the primary destination for Missouri River grain. The gulf market does not take single rail car shipments, only unit trains. Further, grain basis values often are highest during the late spring and summer months. Therefore, without reliable river transport, this market is shut out to our farmers. Using actual rates published in Union Pacific Railroad's tariff, the freight from Kansas City to the Louisiana gulf in 75 car units is 52 cents per bushel. By comparison, a normal barge rate from Kansas City to the Louisiana gulf is 38 cents per bushel.

Based on MFA's Missouri River volume, this will cost us and our producers over $750,000 in lost grain values due to market access, timing and freight costs. MFA has a fertilizer facility at Brunswick, Missouri. Over two-thirds of our inbound fertilizer normally moves via water. None will this season. The economic impact of shifting to higher cost, less environmentally friendly modes is $1.1 million.

Newly developed research has indicated that the preliminary cost to Missouri agriculture due to the inability to use Missouri River transportation is over $22 million.

I have to ask, "Where is the common sense?" Closing a major navigable waterway for "experiments" is illogical! Less than 25 percent of the river is tern and plover habitat. Alternative means of creating habitat exist. On the Platte River, islands and sand pits produce

ven times as many birds at half the cost. Approximately half of adult plovers nest above the avins Point Dam. Where is the common sense?

ie Pallid Sturgeon's range is from Montana to Louisiana. Yet some propose to restore habitat here Sturgeon haven't been found in six years, perhaps at detriment to locations where they do ist. Where is the common sense? Let's not forget the introduction of non-native, predatory h for "sport" that eat young Sturgeon. Where is the common sense?

believe most people are environmentalists. However, some are radical fanatics who are anti-owth, anti-progress, anti-anything. Look at the debate on our lock and dam system on the ississippi and Illinois Rivers. Decades and millions of dollars have been spent on studies and vironmental mitigation without much progress. Meanwhile, foreign competitors continue to vest and modernize their waterways to this country's economic detriment.

is time to remove the protective skirt that these groups hide behind called the Endangered pecies Act. It is time to get down to real business…reform the Endangered Species Act to erate this country for people and prosperity. That is common sense!

uce Hanson
ice President Transportation and Distribution

Testimony of Blake Hurst before the House Small Business Committee on Rural Business Enterprise, Agriculture and Technology at the February 23, 2004 Hearing Entitled: The Endangered Species Act's Impact on Small Business and Farmers

My name is Blake Hurst and I am a farmer from Tarkio, Missouri. My family operates a diversified row crop operation that now includes several commercial greenhouses. In addition, I serve as Vice President of Missouri Farm Bureau the state's largest farm organization.

Mr. Chairman, thank you for conducting this morning's hearing. Your interest and leadership on the issue of Endangered Species reform is much appreciated. For too long, Congress has ignored flaws in the Act and been unwilling to stand up to the political threats of extreme environmental organizations. We can only hope that a majority of Members of Congress will soon come to understand the Act's deficiencies and support much needed reform.

To put it bluntly, the Endangered Species Act is broken and in need of major repair. The goal of the Act remains important—the preservation of endangered species. However, it has evolved into the weapon of choice for those who believe landowners cannot manage without greater regulation or a court order (presumably issued by a judge in a major metropolitan area such as Washington D.C. or San Francisco). Today, federal biologists have the power to impose prescriptive management plans and extort money from Congress without regard to those who actually own or make their living on the land. While we believe it is possible to focus on increasing the population of threatened and endangered species without prescriptive management edicts and the associated economic impacts, this view is not shared by the U.S. Fish and Wildlife Service.

In Missouri, we have firsthand experience with species listed as threatened and endangered by the federal government. In recent years we have dealt with the Topeka Shiner, Indiana Bat, Piping Plover, Interior Least Tern and Pallid Sturgeon. In each case, there was virtually no attempt to work with landowners prior to listing. In the case of the Indiana Bat, federal permits to remove a log jam were delayed not because the species populated the area but rather that the bat might some day venture into the area and build a nest.

Management of the Missouri River is a good example of how the Endangered Species Act can be abused. What started with a drought in the upper basin has evolved into a 14 year water war encompassing state agencies, federal courtrooms, Congress and even the White House. While you are very familiar with this issue, suffice it to say Missouri Farm Bureau and many other organizations are profoundly disappointed with the biological opinion issued recently by the U.S. Fish and Wildlife Service. If land ownership means control over use of the land, it may very well be that the largest landowner in the state of Missouri is the Pallid Sturgeon. Perhaps we should tell the county collector, so the property taxes could be paid by the fish, instead of the farmers, who are now only nominally in control of their land.

The proposed Master Manual is scheduled to be released later this week and it appears Missouri landowners will get to experience a "spring pulse" (also called a prescribed flood), low summer flows (which exacerbate reliability problems for navigators), adaptive management (a license to experiment on private property) and countless acres of mitigation (otherwise known as land acquisition). Make no mistake; these measures will come at the expense of:

- ✓ Farmers who will be subjected to a greater risk of flooding, lower prices for their grain and higher fertilizer costs;
- ✓ Municipalities that will be forced to extend intakes to provide public drinking water;
- ✓ Utilities that rely on flows to cool water used for power generation;
- ✓ The environment as shipments are moved off the river to truck and/or rail;
- ✓ Mississippi River flows which are at times dependent upon flows from the Missouri River.

In the end, consumers will likely pay more for water and electricity. Farmers will pay more for fertilizer and receive less for their grain. Landowners along the Missouri River will be subjected to a greater risk of flooding and public agencies will use taxpayer dollars to add to their inventory of public property.

The U.S. Fish and Wildlife Service is using the Endangered Species Act to prescribe these measures for the Pallid Sturgeon. "Adaptive management" is the term used to describe the process under which the Missouri River will now be managed. "Experiment" is a fitting definition of adaptive management as biologists are given carte blanche authority to use private land along the Missouri River as a laboratory. At this point, there is no way of knowing if any of the prescriptive measures will work. The prevailing attitude is "let's give it a try and if it doesn't work we'll try something else."

Mr. Chairman, there are many ways in which the Endangered Species Act can be improved and I offer the following suggestions:

- The U.S. Fish and Wildlife Service should concentrate on working with landowners prior to a proposed listing. Missouri's 1/10 cent soils and park tax has been successful because of its focus on voluntary, incentive based conservation practices. Working with landowners when a species is in decline provides opportunities for actions that could prevent the need for listing.

- The economic impacts associated with a listing must be taken into account prior to the designation of critical habitat. It is very important that all parties understand the economic impacts associated with both a listing and subsequent biological opinion.

- There must be increased transparency throughout the jeopardy process. Currently, there is little public oversight or review of the management requirements issued by the U.S. Fish and Wildlife Service.

- There must be new checks that prevent species management by judicial mandate. While the ability to seek judicial review is important, shopping for a sympathetic judge must be prohibited.

- The entire concept of adaptive management must be reviewed. Changes are warranted that prevent private lands from becoming laboratories subject to moving goalposts set by biologists devoid of common sense.

- Prescribed management practices must focus first on publicly owned land. Expansion beyond land in public ownership should only occur when it is deemed essential to the preservation of a species.

- Land acquisition must be tied directly to the preservation of an endangered species. The Act must not be used as an excuse for acquiring large parcels of land to add to the vast federal inventory.

In conclusion, we commend your efforts to call attention to the ESA's impact on farmers and small business. As a farmer yourself, you understand the effects that biological experiments will have on the people who farm and live along the Missouri. They're your neighbors, and they most certainly didn't ask to be guinea pigs in an experiment designed a long ways from the flood plain, by a scientist whose salary is guaranteed no matter how that experiment turns out. Deficiencies in the Act must be addressed to create a climate under which landowners are viewed as the solution and not the problem. While cooperation is the key, litigation has become the tool of choice. Perhaps Senator Bond put it best when he said those involved are in need of "adult supervision."

**STATEMENT OF DALE HALL,**
**REGIONAL DIRECTOR**
**U.S. FISH AND WILDLIFE SERVICE**
**BEFORE THE**
**COMMITTEE ON SMALL BUSINESS**
**SUBCOMMITTEE ON RURAL ENTERPRISE, AGRICULTURE AND TECHNOLOGY**
**U.S. HOUSE OF REPRESENTATIVES**
**ON ENDANGERED SPECIES IMPACTS**

**February 23, 2004**

Mr. Chairman and Members of the Subcommittee, I thank you for the opportunity to provide testimony regarding the U.S. Fish and Wildlife Service's (Service) recent amendment to our 2000 Biological Opinion on the Army Corps of Engineers (Corps) operation of the Missouri River. I am Dale Hall, Director of the Service's Southwest Region headquartered in Albuquerque, New Mexico.

The Service is the primary federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. Part of this responsibility includes implementing the Endangered Species Act (ESA). Under Section 7 of the ESA, federal agencies must, in consultation with the Service, ensure activities they authorize, fund or carry out are not likely to jeopardize the existence of an endangered or threatened species, nor result in the adverse modification of critical habitat. In cases where the Service determines that the proposed action will jeopardize the species, it must issue a Biological Opinion offering Reasonable and Prudent Alternatives (RPA) that provide suggested modifications to the project to avoid jeopardy to the species.

In 2000, the Service provided the Corps with a Biological Opinion on the Corps' operation of the dams on the Missouri River. That opinion determined that the Corps' proposed operations would jeopardize the existence of three listed species: the threatened piping plover, and the endangered interior least tern and pallid sturgeon. The Service's 2000 Biological Opinion provided the Corps with RPAs that would avoid jeopardy to those species.

In 2003, the Corps requested to reinitiate consultation based on new mortality data for terns and plovers, designation of critical habitat for plovers in 2002 and new information regarding flow enhancement. Specifically, the Corps proposed to remove the requirements for a spring rise and low summer flows from Gavins Point Dam.

A team of Service experts, along with two technical experts from U.S. Geological Survey, reviewed the most recent scientific data and signed an amended Biological Opinion on December 16, 2003.

In reviewing the most recent scientific information, the team determined that the status of both piping plovers and interior least terns on the river has been improving in recent years. Piping plover numbers have increased by 460 percent within the Missouri River basin since 1997 and

pair counts now exceed the recovery goals. The number of adult least terns has increased since the 2000 biological opinion, and the current estimate of more than 12,000 interior least terns exceeds the recovery goal of 7,000, although the goal of 2,100 tern for the Missouri River itself has not been met.

The status of the pallid sturgeon, however, has not improved, and the species continues to be of significant concern to Service biologists. Over the next two years, the Corps has the opportunity to evaluate several measures that are expected to benefit the sturgeon in particular, including the feasibility of a temperature control device at Fort Peck.

After reviewing the recent data, the team accepted many elements of the Corps' proposal and developed an amended opinion that retains the vast majority of the measures included in the 2000 biological opinion, but incorporates the Corps-proposed performance-based approach. This approach gives the Corps greater flexibility to manage the river while providing equal or greater conservation benefits to piping plover, interior least tern, and pallid sturgeon. The team concurred that the Corps' proposed approach would continue to avoid jeopardy to the piping plover and interior least tern, but could not concur that jeopardy would be avoided for the pallid sturgeon.

The amended Biological Opinion includes an aggressive watershed approach, habitat creation and restoration, test rises along the river and an adaptive management and monitoring program. The opinion includes specific measures to address spawning cues and habitat improvement for sturgeon. This comprehensive approach builds on measures endorsed by the National Academy of Science when it conducted its review of the Missouri River science in 2000.

During the consultation process, the Service worked with the Corps to develop RPAs that are consistent with the intended purpose of the Corps' action, and are economically and technically feasible, but yet would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.

Specifically, the 2003 amendment to the 2000 Biological Opinion accepts several Corps substitutions to the 2000 RPA that will, in our opinion, continue to avoid jeopardy for the piping plover and interior least tern. In addition, new RPA elements were identified to avoid jeopardy for the pallid sturgeon. These RPAs direct the Corps to construct sandbar habitat in a manner that will benefit the needs of piping plovers and interior least terns; before 2006, complete studies to determine the appropriate flow out of Gavins Point Dam to achieve a bimodal spring spawning cue pulse and summer habitat flow, impediments to achieving this flow regime, and mitigation measures for these impediments; for the 2004 annual operation period, implement a summer habitat flow at or below 25,000 cubic-feet/second (cfs) out of Gavins Point Dam during July or otherwise provide sufficient shallow water habitat for the pallid sturgeon; and implement the amendment's flow management plan, which includes two spring spawning cue pulses and a summer low flow, if the Corps is unable to develop a flow management plan by 2006.

Since the issuance of the amended Biological Opinion, the Service has met with the Corps numerous times to answer questions regarding the opinion and to assist the Corps in implementing the opinion's RPAs. Within the framework of the amended biological opinion,

these RPAs provide considerable flexibility to the Corps regarding how and where specific measures are undertaken including opportunities to develop appropriate management steps before prescribed measures would be required in 2006. We are also currently working with the Corps to determine if plans for near-term shallow water habitat are sufficient to meet the intent of the amended Biological Opinion, therefore allowing the Corps to operate for all congressionally-authorized programs this summer. Consequently, we expect to continue to work closely with the Corps through the 2004 operation and as they implement the opinion in the future.

In sum, the Service conducted a thorough review of all the information available since the 2000 biological opinion and determined that the Corps proposed operations would jeopardize the continued existence of the pallid sturgeon. The Service has concurred with many RPA element substitutions offered by the Corps and recommended several others to avoid jeopardy to piping plovers, interior least terns and pallid sturgeon that should allow the Corps and stakeholders along the river flexibility to implement the amended Biological Opinion.

Mr. Chairman, this concludes my prepared statement. I am pleased to answer any questions that you or other Members of the Subcommittee may have.

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