UPPER MISSISSIPPI AND ILLINOIS RIVERS — RECOMMENDATIONS FOR NAVIGATION IMPROVEMENTS AND ECOSYSTEM RESTORATION

(108–76)

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WATER RESOURCES AND ENVIRONMENT

OF THE

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INFRASTRUCTURE
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UPPER MISSISSIPPI AND ILLINOIS RIVERS—RECOMMENDATIONS FOR NAVIGATION IMPROVEMENTS AND ECOSYSTEM RESTORATION

Thursday, June 24, 2004

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT,COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, WASHINGTON, D.C.

The subcommittee met, pursuant to call, at 9:55 a.m. in room 2167, Rayburn House Office Building, Hon. John J. Duncan, Jr. [chairman of the subcommittee] presiding.

Mr. DUNCAN. I want to welcome everyone to our hearing today, where we will examine the draft recommendations of the Army Corps of Engineers concerning navigation improvements and ecosystem restoration along the Upper Mississippi River and the Illinois Waterway.

Because we have a large number of witnesses, we are going to start the hearing a couple minutes early, and we will go ahead with Congressman Gutknecht, who was kind enough to agree to come a few minutes early.

The Corps is recommending an initial set of navigation improvements that include new locks, switchboats, and mooring facilities. The Corps also is recommending authority for an initial 15-year ecosystem restoration program that would include island building, fish passage through existing dams, floodplain restoration, backwater and side channel restoration, dike alterations, and shoreline protection.

The Corps' draft recommendations are large and expensive. To modernize the navigation features of these waterways, the Corps would recommend an initial investment of $1.8 billion, while an initial 15-year ecosystem restoration plan would cost $1.46 billion. As large as these costs are, they represent only the initial installment that the Corps would recommend. Full implementation of the preferred plan identified by the Corps would be $2.4 billion for long-term navigation improvements and $5.3 billion for ecosystem restoration.

We throw out the word billion around here so often it almost loses its meaning, but that is a lot of money that we are talking about. And, in fact, this is the first of a series of hearings. We have had many, many hearings on all kinds of projects, big and small, over the last four years in this subcommittee, but we are taking a look at three of our bigger projects over the next few weeks, start-

ing with the Upper Mississippi and the work on the coastal Louisiana projects and the Everglades work over the next few weeks.

The Corps believes that the whole plan in regard to the Upper Mississippi should be implemented in a phased manner, adapting the future elements based on lessons learned in the beginning or initial phases. Projects of this size will always be controversial, based on cost if nothing else. Some also oppose increased use of our waterways for navigation because they are concerned about environmental impacts.

For the past 12 years, the Corps has been collecting and analyzing data to develop these proposals. They have spent over $70 million, $33 million of that in environmental studies. I don't know how you can study something for $33 million worth of funding, but they managed to do it here. They have been criticized for the difficulty in projecting future grain exports. They have been criticized for concluding that scheduling or other non-structural solutions alone will not solve the problem of congestion on the Mississippi and Illinois Rivers.

Today we will hear from witnesses about the age and inadequate size of the existing locks on the Upper Mississippi River and Illinois Waterway System. We will hear from witnesses about the elements of our Nation's economy that depend on the use of these waterways, including farmers, the construction industry, energy suppliers, and the steel industry. We also will hear debate on just how much growth in international trade we can expect and what volume of goods will move on this river system over the next 50 years, although we recognize it is almost impossible to project or predict 50 years into the future.

Some in this debate argue that we are going to reduce our grain production, reduce toll shipments, reduce the need to move construction materials, reduce the manufacture and export of steel and other goods. Those people are betting that these parts of the U.S. economy will shrink. If we increase the cost of U.S. goods with an inefficient transportation system, then this will be a self-fulfilling prophecy. I am not interested in selling U.S. farmers and U.S. manufacturers, the ones that we have left, down the river. We have had years of debate leading to the conclusion that it is impossible, or almost impossible, to predict even a year or two ahead of time, much less five or ten years, and certainly, as I mentioned, extremely difficult to project 50 years into the future.

Instead of trying to predict the future, we should be talking about how we want to shape the future. Ultimately, it is up to Congress to decide what type of water transportation system we want and need for this Country. We also have to make the same decisions about the ecosystem of the Upper Mississippi River. Some consider the Corps' proposal for ecosystem restoration on the Upper Mississippi to be a sweetener for the navigation project. We should not look at it in that way. The ecosystem restoration project is a separate project and has to stand on its own merits. Also, it is not mitigation for the navigation improvements. The navigation project includes its own set of mitigation features, which really deal with the ecosystem also.

As with our waterway transportation system, we need to understand what kind of ecosystem the Nation wants for the Upper Mis-

sissippi River and then work toward achieving that goal. To date, it has been very difficult to get the Corps of Engineers to articulate the goal other than an undefined "sustainable" ecosystem. I hope some of the witnesses today will be able to provide a vision for the future of the Upper Mississippi River just as we will hear a vision for the future of river navigation.

Finally, in all of this debate, we must keep in mind that the annual construction budget for the Corps of Engineers has been flat at $1.7 billion for the last 20 years. For inland waterway construction, half of the cost is funded by taxes paid by large operators and deposited into the Inland Waterways Trust Fund. Because they pay these taxes, the Inland Waterways User Board is afforded the opportunity to make recommendations on inland waterway navigation investments. The navigation improvements for the Upper Mississippi River and Illinois Waterway System are a top priority for the Inland Waterways Users Board.

We don't have a similar system for allocating ecosystem restoration investments. It would be useful to know where the Upper Mississippi River ecosystem would be ranked nationally among user groups. One way to gage support for ecosystem investments is to determine where there are willing cost-sharing partners. Unfortunately, under the existing Upper Mississippi River Environmental Management Program, few cost-sharing partners have stepped forward. I hope some of our witnesses will be able to explain why this is the case.

Before we get to our distinguished witnesses, I would like to turn to my good friend and ranking member, my colleague, Mr. Costello.

Mr. COSTELLO. Mr. Chairman, thank you. Mr. Chairman, I have an extensive statement that I will summarize this morning and put my statement in the record.

First, let me thank you for calling this hearing today. The Upper Mississippi River-Illinois Waterway System Navigation Study is vitally important to the Midwest and the Nation as a whole. This study, I think we all realize, cost more and has taken more time than any study undertaken by the Corps of Engineers. As you mentioned in your opening comments, it cost over $70 million and has taken 12 years to bring us to the point where we are. I am not sure that we got our money's worth, but at least we have a product before us today, at last, that we can consider this legislative year.

The U.S. transportation system is the envy of the world; we have an extensive system of highways, ports, locks, dams, and airports. Yet this system cannot remain stagnant. We must work to maintain and improve our Nation's infrastructure.

The Upper Mississippi-Illinois Waterway Navigation Study calls for a significant modernization of lock facilities coupled with the most ambitious investment in ecosystem restoration outside of the Florida Everglades. The modernization of the locks must be accomplished in a way that respects the environment and minimizes any adverse impacts. I believe this can be done and will be done, and I am confident that this committee will remain vigilant in overseeing the lock modernization in ecosystem restoration.

Now, as the study nears completion, it is time for the Congress to promptly act upon its results. The economic benefits of mod-

ernizing the locks and the benefits of aggressively addressing the ecorestoration needs of the region have been delayed for too long.

I am pleased to finally see that our colleagues in the other body have begun to move the WRDA bill, Water Resources Development Act, in the Senate, and I hope that in the coming days, certainly before too long, that we can get a bill that we can put into conference and, in fact, come to an agreement and put a WRDA bill on the President's desk that he can sign this year.

Mr. Chairman, I am well aware of the controversy that surrounds this study. I will not suggest that the report prepared by the Corps is perfect and could not be improved upon, but I will suggest that the modernization of the navigation system and the restoration of the ecosystem are of critical importance to the economy and the general well-being of the region. It is time to authorize both components. The Upper Mississippi River and the Illinois Waterways are national resources that deserve national support.

Mr. Chairman, I thank you for conducting this hearing, and I look forward to hearing from all of our witnesses today.

Mr. DUNCAN. Thank you very much.

Mr. Blumenauer.

Mr. BLUMENAUER. Thank you, Mr. Chairman. I too appreciate your continued focus on major issues of our water infrastructure.

I have, I guess, a slightly different perspective on this. One of the reasons why I was so interested in having an independent peer review of major projects was to get a situation where we have greater comfort. Yes, we have studied this for 12 years, but, as you know, there has been major controversy and we have found that, unfortunately, the study process has been flawed. We have to, I think, put on the table that this project here would be the most expensive water infrastructure project in our Nation's history. I too am interested in efficiency and environmental protection, but I think the evidence suggests that barge traffic is already declining in recent years. It has been flat for 20 years.

Why do we need to move forward with the most expensive project in our Nation's history, something on the order of 10 percent of the Corps' construction budget for years, when we have major activities like the erosion of Louisiana, for instance, and I think people have great concerns that were cut out of the President's budget? I am very concerned that we properly explore other ways of dealing with what appears for the last 20 years to be a flat barge traffic pattern by some other management initiatives.

I just want to make clear that moving ahead, as the other body appears to be doing, with this project through WRDA doesn't give a great deal of confidence to me. I appreciate the hearing. I would hope that there would be an opportunity for more diverse opinions.

One of the things, Mr. Chairman, you and Mr. Costello have done in the past is let the chips fall where they may, and you have had a wide variety of voices that have been heard before this committee, and I have found it valuable. Sometimes I have been surprised in ways that I didn't think, given my orientation. But I know, because I have talked to some of the whistleblowers and a variety of people on this project in the past, that there are a wide range of opinions, ideas, experiences, and points of view. I would hope that there would be a way, as we move through this, to give

voice to them, because I think the bigger, broader picture will help us.

I appreciate your doing this and look forward to our hearing.

Mr. DUNCAN. Well, Mr. Blumenauer, you have been an outstanding member of this subcommittee, and we will give voice to anybody that wants to be heard. And one of our finest members, one of my best friends, is the gentleman from Minnesota, Mr. Gutknecht.

Gil, it is an honor and privilege to have you here with us. You have been more interested, involved, concerned about this work than just about any other member, and we are pleased to have you here with us today to provide whatever statement you want. You are entitled to place a full written statement in the record, and you may proceed with whatever oral remarks you wish to make.

TESTIMONY OF HON. GIL GUTKNECHT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. GUTKNECHT. Mr. Chairman, thank you very much for allowing me to come and testify today. The Mississippi River is incredibly important not only to my constituents, but I think to all the people of the United States.

There are multiple uses of the Mississippi River; it is an important natural resource, a place for recreation for literally hundreds of thousands of Americans, and an essential transportation link for our national economy.

The Upper Mississippi River valley provides habitat for 305 species of birds, 57 species of mammals, 45 species of amphibians and reptiles, and 134 species of fish. There are many bald eagles, in fact, hundreds of pairs of bald eagles in the area, and they can be seen year-round in the Upper Mississippi.

One of the most spectacular sites, though are, the tundra swan, which come from Alaska and Northern Canada on their migration route to the Chesapeake Bay every year. As many as 30,000 can be seen, and I would invite any of you to come sometime generally in late November. They come and stay several weeks, and it is a spectacular site to see them. They are like giant white B-52s. And people tell me that they have been visiting that area for up to 10,000 years, and I think one of the goals of this subcommittee and, indeed, the Congress, is to make certain that those tundra swan can come and spend a few weeks every fall for thousands of years to come. They stop at a little place called Rieck's Lake, which is right across the river; it is not actually in my district, it is actually on the Wisconsin side. But now hundreds of thousands of Americans come to watch the tundra swan every year.

The Upper Mississippi is also a haven for boating and fishing, and all kinds of other recreation. Locals and tourists alike enjoy year-round fishing for walleye, northern pike, sauger, bass, perch, crappies, sunfish, and catfish up and down the river. And I might mention that the quality of the river has improved dramatically over the last 20 years. In Minnesota alone now we can find smallmouth bass in every stretch of the river, from the Iowa border to the headwaters.

Our Nation's economy is also dependent upon the river. In 1999, for example, over 151 million tons, 151 million tons of commodities

moved on the waterways of the river system with a combined value of over $24 billion.

Minnesota alone sent about $1.4 billion worth of grain down the river. Of course, most of it traveled to New Orleans or Baton Rouge for export to foreign markets. About 70 percent of our Country's agricultural exports travel along the Mississippi River at one point or another. The Mississippi River supports more than 400,000 jobs in manufacturing, agriculture, and shipping, all of which, in turn, help to support local businesses.

But the river needs our help to maintain and improve its multiple uses. The day-to-day wear and tear on the river has taken its toll. The locks on the Mississippi River were designed for a 50-year life span and are now over 70 years old. Today's barge traffic is significantly different than when the locks were designed. The dilapidated state of the system, coupled with modern barge traffic, has caused delays and other problems on the river.

Over time, Rieck's Lake, the open water there has been reduced by about 90 percent due to erosion, sedimentation, and other developments along the river that have slowed the waters. We need to restore the natural features of Rieck's Lake so that the tundra swan and other water fowl can come there for thousands of years.

Fortunately, there is light at the end of the tunnel. The Army Corps of Engineers Navigation Study, which has had significant problems over the years, has finally neared completion. The Corps preferred alternative is a balanced, reasonable approach that will enhance all of our users of the Upper Mississippi River system. They have put together a plan for lock reconstruction and ecosystem restoration that will be completed over the next several years to ensure that all of the multiple uses of the river will be maintained and improved.

By improving navigation on the Mississippi, we can reduce traffic on our roadways and reduce pollution. A typical tow of 15 barges down the river can carry as much as 870 semi-truckloads of commodities with 60 percent less pollution and emission problems. Unfortunately, the current lock systems are only 600 feet in length. The link of 15 barges averages about 1100 feet. So tow boats have to drop off half of their barge in order to pass through the locks, and then reconnect and then repeat the procedure upon arriving at the next lock. Building 1200 foot locks will cut dock time and cost, and those savings are passed along to farmers, manufacturers, and consumers, creating jobs for our economy.

The Corps also proposes billions of dollars to restore the river's ecosystem and promote wildlife to return the river to its natural cycles. This investment will promote a more natural state of the river, improving wildlife habitat, benefitting recreational use, and create a more sustainable system.

While the Corps' proposal is a long-term plan, there are steps that this committee should take now as Congress works to reauthorize the Water Resources and Development Act. I was pleased that yesterday the Senate committee marked up the bill and the most critical components were included for the next 15 years. This will accomplish the most pressing transportation and ecosystem restoration and move us toward improved used of the river.

Provisions relating to the Upper Mississippi River in the bill were largely based on the Corps' preferred alternative and Senate bill 2470 introduced by Senator Kit Bond and a bipartisan group of senators from along the river. I am working with House members on a companion bill that will provide significant funding for a balanced approach to the river uses as well.

The time for us to act is now. Every day America is losing profits due to the inefficiency of the current navigation system. At the same time, we have a chance to invest in our environment and create an improved river ecosystem.

Mr. Chairman, I thank you so much for the opportunity to testify today, and I would be ready to answer any questions if I can.

Mr. DUNCAN. Well, thank you very much, Gil. We have a practice in this subcommittee and because we have a large number of witnesses, we don't ever ask any questions of our members panels because we have a chance to discuss these matters with you on the floor and other places, and we know you have a very busy schedule also. So we thank you very much for coming here this morning and giving this very informative statement. Thank you very much.

Mr. GUTKNECHT. Thank you, Mr. Chairman and members. Thank you.

Mr. DUNCAN. We will ask the first panel to come up at this time.

Representing the Army Corps of Engineers is Major General Carl Strock, the Director of Civil Works; representing the Department of Transportation is Mr. John Jamian, who is the Deputy Administrator for MARAD; representing the U.S. Department of Agriculture is Mr. A.J. Yates, Administrator for the Agricultural Marketing Service; representing the Fish and Wildlife Service is Dr. Benjamin N. Tuggle, who is the Chief of the Division of Habitat and Resource Conservation. All of those witnesses are from Washington, D.C. And then from Chicago we have Ms. Jerri-Anne Garl, representing the Environmental Protection Agency. She is the Director of Region 5, the Office of Strategic Environmental Analysis.

And we are very pleased to have all of you here with us today. We always proceed in the order in which the witnesses are listed on the call of the hearing, and that means, General Strock, we will proceed with you. Your full written statements will be placed in the record. We ask that you limit your opening statements to five minutes. We give you six minutes because we know sometimes it is a little hard to read in that amount of time, but in consideration of other witnesses, we will cut you off after six minutes if you exceed that amount of time.

General Strock.

TESTIMONY OF MAJOR GENERAL CARL STROCK, DIRECTOR OF CIVIL WORKS, U.S. ARMY CORPS OF ENGINEERS; JOHN JAMIAN, DEPUTY ADMINISTRATOR FOR MARAD, DEPARTMENT OF TRANSPORTATION; A.J. YATES, ADMINISTRATOR, AGRICULTURAL MARKETING SERVICE, U.S. DEPARTMENT OF AGRICULTURE; DR. BENJAMIN N. TUGGLE, CHIEF, DIVISION OF HABITAT AND RESOURCE CONSERVATION, FISH AND WILDLIFE SERVICE; AND JERRI-ANNE GARL, DIRECTOR, REGION 5, OFFICE OF STRATEGIC ENVIRONMENTAL ANALYSIS, ENVIRONMENTAL PROTECTION AGENCY

General STROCK. Thank you, Mr. Chairman. Members of the committee and distinguished guests, I am pleased to testify here before you today on behalf of the United States Army Corps of Engineers over the Upper Mississippi River and Illinois Waterway Navigation Feasibility Study.

Mr. Chairman, between you and the senior minority, I think you pretty well laid out what I am going to talk about, but I will go through it for the record anyway.

Sir, on May 6th, 2004, Brigadier General Don Riley, the Mississippi Valley Commander, released for public review a draft feasibility report and programmatic Environmental Impact Statement for the Upper Mississippi River-Illinois Waterway System Navigation Feasibility Study. The draft report contains a draft plan for public review that addresses the system needs for navigation efficiency and ecosystem restoration.

Our goal is to ensure that the Upper Mississippi River System remains what Congress recognized it as in 1986, namely, a nationally significant ecosystem and a nationally significant commercial navigation system. We believe these objectives are compatible, and we can have a modern commercial waterway that is not only environmentally sustainable, but that we can also make significant improvements in the ecosystem.

We need to emphasize where we are in the public review process. We are not yet making a recommendation. Public and agency review of and comment on the draft report is currently ongoing. The results of these comments and review will be used in formulating the final recommendation, which will be contained in a report by the Chief of Engineers.

While this has been a long, challenging and productive study process, there are a number of things about this study that are noteworthy. First, an extraordinary level of openness and collaboration has been the hallmark of this study. During the course of the study, there have been seven different rounds of public meetings, with a total of 54 meetings attended by over 5,000 people.

Study efforts have involved much more than the coordination and information exchange. Regional teams of Federal and State agencies and non-governmental organizations were established to comment and advise on economic and environmental studies and evaluations. These teams have had more than 70 meetings.

At the Washington level, the Federal Principals Group, consisting of representatives of the Corps, the U.S. Department of Agriculture, Agriculture Marketing Service, the U.S. Fish and Wildlife Service, the U.S. Department of Transportation's Maritime Administration, and the U.S. Environmental Protection Agency have ad-

vised the Corps and provided study oversight, coordination, and guidance. This study has been a true partnership, and we have heard from all competing interests.

Second, the planning has been marked by a commitment to balance and sustainability, ensuring that both the needs of economic efficiency and ecosystem integrity are fully addressed. We believe that we can have a modern and efficient navigation system on the Upper Mississippi and Illinois River, and also maintain a healthy and productive ecosystem. The Upper Mississippi and Illinois River system can be a working river and also be a river that works.

Third, we have recognized that there will continue to be a high level of uncertainty in both projecting future economic conditions and in predicting the response of natural ecosystems to the restoration measures. It is not likely that looking at past trends will give us an accurate picture of the future. Further, events that we do not have the ability to forecast will drive future conditions. However, the Nation cannot afford to stand still. A plan for navigation efficiency on the system may include a combination of small scale structural and non-structural methods, but also include major structural improvements with progressive levels of investment over time as warranted. Ecosystem restoration measures will be refined as we gain knowledge and experience. We can move forward in a way that is flexible and adaptive, recognizing that future plans may need to be adjusted and reflect emerging conditions and trends.

Fourth, the study has been and will continue to be independently reviewed. In response to a request from the Department of Army, the National Research Council, the NRC, conducted a review of the Feasibility Study, concentrating on a review of the economic analysis, but also considered national water resources planning guidance, environmental impacts, and costs of navigation improvements. The February 2001 NRC report contained a number of recommendations. The Corps adopted several of those recommendations in restructuring the navigation study and formulating the Corps research program. These included giving equal consideration to fish and wildlife resources, considering the ongoing effects of the existing 9-foot project in formulating plans for ecosystem restoration, and initiating research on improved economic models for use in inland navigation studies.

We also contracted with the NRC to provide an independent review of the restructured Feasibility Study. A second NRC panel issued a preliminary report on the restructured feasibility study, and this panel will issue a second, more comprehensive report based on a review of the draft feasibility study and the EIS, and a final report following the issuance of the Chief of Engineers report.

In addition to the NRC review, we have solicited the advice of outside experts in formulating the ecosystem restoration plans and the adaptive management program, in formulating and reviewing the traffic scenarios, and in evaluating non-structural alternatives.

In conclusion, we stand by our efforts of our study team and partners. The views of Congress, other Federal agencies, the States, local governments, interest groups and citizens will continue to be an integral part of selecting the plan for the Upper Mis-

sissippi River and Illinois Waterway system. We will continue to seek independent input and review from the National Research Council as we move forward. We are confident that we will be in a position to offer you sound conclusions and recommendations when we complete the feasibility report and the Chief of Engineers report.

This concludes my statement. I would be happy to answer any questions that you might have.

Mr. DUNCAN. Thank you very much, general.

Mr. Jamian?

Mr. JAMIAN. Chairman Duncan, Congressman Costello, members of the subcommittee, thank you for the opportunity to be here before you today. As a former Michigan legislator that oversaw a lot of the issues on the Great Lakes, former executive of Detroit Wayne County Port Authority, and now Deputy Administrator at the Maritime Administration here in town, I am delighted to be before you.

Our coastal ports and network of inland waterways play an important role in our Nation's transportation infrastructure and our economy. The marine transportation system provides American businesses with a competitive access to suppliers and markets in an ever-increasingly global economy; it is a key element of State and local government economic development, job creation efforts, and a source of profits for private companies. Annually, the U.S. maritime transportation system moves more than two billion tons of domestic and international freight, imports 3.3 billion barrels of oil to meet U.S. energy demands, transports 134 million passengers by ferry, serves 78 million Americans engaged in recreational boating, and hosts more than 5 million passengers that are on cruise ships.

Within the United States, the inland waterways provide a means for moving major bulk commodities such as coal, oil, and petroleum products, and grain and farm products. Waterborne cargo contributes more than $742 billion to the U.S. gross domestic product and creates jobs for more than 13 million American citizens. Domestic waterborne shipping in the United States moves 14 percent of our national cargo tonnage; it provides $300 million in Federal tax revenue and $55 million in State tax revenue annually. The inland waterway system's potential for solving national transportation problems can be significant. For example, a single 1500 ton barge can carry the equivalent of 15 jumbo rail hoppers or 58 large trucks of bulk cargo. Waterborne transportation is the least expensive way for shippers to transport goods between two points on the river, causes less pollution than other modes, and has the fewest accidental spills or collisions of all forms of transportation. In fact, the safety record of the inland waterway transportation system is unmatched by any other mode.

The Nation's freight transportation system faces significant bottlenecks and the Department is working to develop a fully integrated national transportation system. To achieve this objective, we are working with other Federal agencies to solve national challenges to waterborne transportation.

The Department of Transportation has made a point to reach out to the inland waterway constituency. The maritime Administrator

and I frequently meet with representatives from the inland waterways industry in order to seek out ways the Department can better facilitate national transportation goals and assess the inland waterways infrastructure.

For the past 12 years, the Army Corps of Engineers has been studying the need for the inland waterway infrastructure modernization on the Upper Mississippi and Illinois Waterway. This past spring, the Corps released a draft study on this issue. The Department would like to commend the Corps for its interagency approach to the study process. The process allowed the interested agencies to address the issues in a collaborative and problem-solving manner. In an effort to educate everyone on some of the more complex issues, the Corps also brought in industry experts to discuss aspects of the study.

In September 2003, the John A. Volpe National Transportation System Center prepared an Upper Mississippi River and Illinois Waterways Non-Structural Measures Cost Benefit Study at the request of the Corps. The Volpe Study focuses on the potential for non-structural measures to improve efficiency in those waterways. The Volpe report concluded that excess lockage time fees would encourage operators to improve their maneuver times; however, the study concluded that the cost of installation of winches to speed the lockage process and avoid the excess lockage fee was not justified by the time savings gained. The Volpe Study also concluded that scheduling systems, including tradeable permits, whose aim is to impose more predictability on the system were impractical for this waterway and would alter the responsive and flexible nature of the service currently provided to shippers.

After review of all the data, the Corps has recommended the use of a combination of small-scale structural and non-structural measures, as well as major structural improvements consisting of new locks and lock replacements. We support this recommendation as one steps in improving our Nation's inland waterways.

So in conclusion, Mr. Chairman and members, the contributions of our coastal ports and inland waterways to the Nation's intermodal transportation system are significant and deserving of attention. They are the economic engines of international trade. The infrastructure provided by our harbors and inland waterways gives us a natural competitive edge that we must continually maintain and update. Thus, the Department of Transportation is committed to working with others using a coordinated, integrated approach to meet our Nation's transportation needs.

I thank you once again for this opportunity to testify today, and I would be pleased to answer questions at the conclusion of this hearing.

Thank you.

Mr. DUNCAN. Well, thank you very much, Mr. Jamian. It is an honor to have you with us.

Mr. Yates?

Mr. YATES. Mr. Chairman, good morning, and thank you for the invitation to appear before this subcommittee today.

The U.S. Department of Agriculture shares U.S. producers' and agriculture shippers' interest in ensuring that our Nation has an efficient transportation system. Our competitive edge in global

markets depends on our ability to efficiently move our products. This is true today more than ever before, particularly as our producers strive to compete with producers in countries that are investing in their transportation infrastructure.

Our Nation's inland waterways system often has been referred to as the first interstate highway system, and for good reason. Transportation by water has been shown to be low-cost to shippers, environmentally friendly, and highly effective at moving vast quantities of bulk commodities to ports where they are destined for export. Each 15-barge tow saves the highways from 870 semi-trucks, which would stretch for 11.5 miles bumper to bumper. Each 15-barge tow carries nearly 800,000 bushels of grain, equivalent to the production of nearly 6,000 acres of corn. The majority of the United States grains for export which are produced in the interior States of the Nation are moved by rail and trucked to the major arterial waterways, which then feed into the Mississippi River, comprising a vast waterway system capable of moving millions of tons of grain.

A relative handful of States in our Nation's heartland, including Minnesota, Wisconsin, Nebraska, Iowa, Indiana, Illinois, and Missouri, produce the majority of the U.S. corn crop. These States outproduce Argentina's corn crop ten times over. In fact, these States produce more corn than Argentina, Brazil, and China combined.

Last year, our agricultural production broke records. Around the world, other countries were not as fortunate and they turned to the U.S. supplies to meet their needs. China entered the world market and will purchase a record high level of agricultural products this year from the United States. This year, U.S. agricultural exports are forecast to reach a record high of $61.5 billion, due in no small part to heavy demand for corn, wheat, and soybeans from other countries.

For the 2004-2005 crop year, USDA is again forecasting a record corn crop and strong export demands. Soybeans production is also projected to reach record levels in the United States. However, increased oilseed production in South America will mean strong competition in global markets. While an efficient transportation network is only one factor in determining our competitive position, it does affect the overall price at which shippers can offer their goods.

The dominant grain producing regions in the United States include the Corn Belt and the Northern Plains States. These States are located 1,000 miles or more from the ports that serve the Nation's export activity. Our competitors in South America, however, have a geographic advantage that we do not. The dominant grain producing regions of Argentina and Brazil are located within 200 miles of their ports, and in some cases as close as 50 to 100 miles. And even more significantly, as they have begun to make investments in their transportation infrastructure to compete in world markets, the U.S. advantage in the world grain market has begun to erode.

USDA recognizes that improvements in the inland waterway system are completed by a number of competing interests and purposes that the river system serves. Certainly, navigation and environmental considerations are at the forefront of those interests. While USDA is particularly mindful of transportation needs of this

Nation's agricultural producers and shippers, we believe that environmental interests can be accommodated as well.

Some who oppose navigation improvements to the Nation's inland waterway system may believe that agriculture can rely on railroads to do the job. It is true that railroads can and do provide alternative transportation for the Nation's agricultural exports, but railroads cannot do the job alone. Consider the past crop year. Railroads struggled to keep up with traffic demands last fall and winter as the U.S. corn crop broke all historic records and the wheat crop was also considerably larger than the previous years. Wait time for rail cars often exceeded 30 days at times. Now imagine waiting 30 days for your product to be picked up or delivered in this world of "just-in-time" inventory management.

Like many other parts of the Nation's infrastructure, railroads are also stretched to capacity. The major Class I railroads all expect increased demands for service this year as the economic recovery that is underway continues to gather steam. The railroads are investing in more cars, more locomotives, and more personnel, investments that will be important over the long run, but railroads cannot do it all, and they cannot do it alone. All modes of transportation play an important role in moving products produced in the United States to domestic consumers and global markets. No single mode of transportation can serve all of the demands for freight movement.

Moreover, multiple modes of transportation helps keep rates competitive by offering alternatives in transportation services market. This is particularly true for barge and rail transport. The availability of barge transportation as a viable alternative to rail plays an important role in keeping rail rates competitive. The reverse is true as well. It is a simple fact that fewer transportation alternatives mean higher transportation costs.

USDA's research shows that nearly half of the cost of U.S. grain at its final destination in Asian markets is accounted for by the cost of transportation from the farm gate to the final consumer. Therefore, availability and cost of transportation affects the ability of our farmers to gain and hold foreign markets. From the shipper's perspective, barge transportation is the cheapest portion of the freight bill for grain moving from Minneapolis, Minnesota to gulf ports for shipping for shipping to Japan. Barge rates are three times cheaper than rail; rail rates are three times cheaper than trucks.

According to the American Waterways Operators Association, 25,000 to 60,000 jobs are tied just to barge transportation on the Nation's inland waterways. Each billion dollars in agricultural exports generates 15,000 U.S. jobs.

Investing wisely for our future is in the national interest. We advocate sound investments in the Nation's transportation infrastructure to ensure that we have enjoyed in the past and our position as a global leader in agricultural production and trade.

USDA recognizes that the competing interest in our Nation's inland waterways have different and valid perspectives. However, USDA stands strongly behind the importance of this Country's agricultural commerce both for the role it plays in our larger economy

and for its importance to producers, their families, and rural communities.

Thank you.

Mr. DUNCAN. Thank you very much, Mr. Yates. That is a fascinating figure; more corn from those States than Argentine, Brazil, and China all combined. Very interesting.

Dr. Tuggle?

Mr. TUGGLE. Mr. Chairman, members of the subcommittee, I am Dr. Benjamin Tuggle. I am the Chief of the Division of Habitat and Resource Conservation with the Fish and Wildlife Service. And I have also had the privilege of serving as the Department of the Interior's representative on the Principals Task Force of the Upper Mississippi River-Illinois Waterways Navigation Feasibility Study.

I am pleased to appear before you today to discuss the Service's continuing effort to work with the Army Corps of Engineers and other stakeholders to develop a proposal that meets the Nation's navigation needs, while promoting measures to conserve fish and wildlife resources of the region.

The Upper Mississippi River system is a globally significant ecosystem. There is a strong Federal interest in this system because of the large amount of public lands totaling 425,000 acres. Of this total, 285,000 acres are found within nine national wildlife refuges. In addition, this ecosystem is a tremendously important interstate and international flyway for migratory birds, and it provides key aquatic habitats for many native species of fish, amphibians, and muscles.

Since the early 1990s, the Service has worked with the Corps of Engineers on the Upper Mississippi River-Illinois Waterway Study. When this study was initiated, the sole purpose of the investigation was concerned with navigation improvements. The Service's responsibility under the Fish and Wildlife Coordination Act was to assess the impacts of the proposed actions on the environment and to recommend alternatives to minimize or avoid any adverse ecological effects. The Service and the State natural resource agencies also advocated at that time the need to assess and mitigate the ongoing and cumulative ecological effects associated with the operation and maintenance of the existing Nine-Foot Channel navigation project.

In early 2001, the Corps suspended work on the original Feasibility Study to consider possible changes in the study purpose. At that time, a group of Federal agency representatives was convened to help the Corps consider a new study direction. This Federal Principals Task Force was composed of senior representatives from the Departments of Interior, Agriculture, Transportation, and the Environmental Protection Agency. The Service's role in reconstructing the study was to provide advice to the Corps on strategies and measures designed to achieve the long-term sustainability of the Upper Mississippi River ecosystem and to identify restoration opportunities.

A key recommendation of the Principals Task Force was to develop a comprehensive mitigation plan to address the effects of the operation and maintenance of the navigation system on the environment, as indicated and quantified in the cumulative effects analysis. The restructured study reflected these recommendations.

By incorporating an ecological component into the study in the form of habitat restoration objectives, the restructured study resumed in the form of two principal tracks: one to reassess the economic justification for the navigation improvement measures, and the second to develop a comprehensive plan to restore fish and wildlife resources affected by the existing navigation project.

Since the restructuring occurred, the Service has collaborated with the Corps and the State and other Federal resource agencies to develop alternatives designed to reverse the declining habitat quality and achieve environmental sustainability throughout the Upper Mississippi River system. Many of the Service and State recommendations were included in the proposal that the Corps has presented in its draft feasibility report. The Service supports the comprehensive approach the Corps has taken to address navigation needs and the sustainability of the river's natural resources.

Ecosystem restoration is a long process. Sometimes these processes can take up to 50 years and beyond. The Service believes that to fulfill this objective, an adaptive management strategy should be employed. Initially, such a project would emphasize the identification of needed habitat management measures through a combination of experimental project design and performance evaluations. We look forward to working with the Corps of Engineers and our other partners to develop the management and institutional framework necessary to achieve the dual purpose goals of this study.

Mr. Chairman, that concludes my statement. I want to thank you for allowing me to appear before you today, and I would be pleased to answer any questions that you or the subcommittee might have.

Mr. DUNCAN. Well, thank you very much for being here with us today, Dr. Tuggle.

Ms. Garl, in this subcommittee we sometimes try to save the best for last.

Ms. GARL. Thank you, Mr. Chairman. Good morning and thank you for allowing me to testify today on behalf of the Environmental Protection Agency.

I am Jerri Garl, Director of the Office of Strategic Environmental Analysis in EPA's Region 5 Office in Chicago.

EPA has a unique environmental review responsibility with regard to studies like this ongoing Feasibility Study. First, under the National Environmental Policy Act, Federal agencies are required to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions, and to publicly disclose the information. To meet this requirement, Federal agencies prepare a detailed statement known as an Environmental Impact statement for proposed actions that will significantly affect the environment. Under Section 309 of the Clean Air Act, EPA is then required to review and publicly comment on certain matters, including the environmental impacts of major Federal actions that are the subject of these EISes.

Second, under Section 404 of the Clean Water Act, EPA has responsibilities in connection with the regulation of the discharge of dredged and fill material into waters of the U.S. Activities that are regulated under this program include fills for development, water resource products such as the navigation improvements proposed

by the Corps for the Upper Mississippi River and Illinois Waterway, and other kinds of infrastructure development. The basic premise of the program is that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the Nation's waters would be significantly degraded. The permit applicant must demonstrate that steps have been taken to avoid adverse ecological impacts where practicable, minimize potential remaining adverse ecological impacts, and restore or create wetlands to offset any remaining unavoidable impacts.

Like other Federal agencies, EPA has been working on the Feasibility Study with the Corps of Engineers since its initiation in 1993. Region 5, headquartered in Chicago, has been the lead region for this involvement, with support from our Region 7 office in Kansas City, since our two regions share the Upper Mississippi River basin. This involvement has occurred through our participation in the Navigation Environmental Coordination Committee, or NECC. This committee, made up of Federal, State, and non-government stakeholders, provided input on the overall project direction and types of environmental analyses that are needed for the Feasibility Study. After a brief halt in the study in the year 2000 necessitated by the Corps undertaking a policy review and completion of a National Research Council review, the Corps established a Federal Principals Group, with headquarters participation, in June of 2001 to seek ongoing guidance from other key Federal agencies responding to the NRC recommendations and in restructuring the study. Our region's role evolved to include supporting our agency's representatives on the Principals Group. Region 5 also participates on the Federal Regional Workgroup that provides technical support and also serves as a liaison with EPA headquarters and other regional stakeholders. Through our continued participation on the NECC and the Federal Regional Working Group, and through our support to EPA representatives on the Principals Group, Region 5 has continued to analyze and provide input on this project to the Corps of Engineers.

As you have heard, the Corps has established a very collaborative process that sought input from EPA and many other stakeholders of the Upper Mississippi River system. Through this, the Corps has developed a framework for the Feasibility Study that integrates these dual goals of environmental sustainability and efficient navigation. EPA has long advocated for ecosystem restoration to be fully considered in the Feasibility Study, and we were very supportive of the Corps' decision to add restoration as a fundamental project purpose. The natural habitat has been damaged significantly by the construction and operation of the navigation channel. The Corps consideration of ecosystem restoration needs is intended to help offset the ongoing and long-term cumulative impact of this channel on the ecology of the river.

The ecosystem of these two rivers and their floodplains is dynamic and complex. Including ecosystem restoration in the Feasibility Study will help facilitate sustainable river conditions that will echo the Corps' long-term goals of efficient navigation and natural resource health, goals EPA shares. The dual purpose approach will greatly benefit a river that serves as a major artery for trans-

porting bulk commodities, but is also a nationally treasured ecological resource.

EPA remains committed to this collaborative process with the Corps and other stakeholders of the Upper Mississippi River system as the Feasibility Study is completed and implementation decisions are made.

Mr. Chairman, this concludes EPA's testimony. I appreciate your hearing from EPA and would be pleased to answer any questions from you or other members of the committee. Thank you.

Mr. DUNCAN. Thank you very much, Ms. Garl.

We are always honored to have the ranking member of the full committee, Mr. Oberstar, a former staff director of the full committee. Probably no one knows the work of this committee and our subcommittees better than Mr. Oberstar, and I would like to call on him at this time for any statement or questions or comments that he has.

Mr. OBERSTAR. Thank you very much, Mr. Chairman, for your courtesy and for your warm comments. And let me again congratulate you on the leadership you have shown in directing the work of this important subcommittee and the work of Mr. Costello, our ranking member. You have launched the subcommittee and, therefore, the full committee, on an inquiry into what will be one of the most important undertakings in the history of the Corps of Engineers, the revitalizing and management of the long-term future of the Upper Mississippi waterway and all its connectors.

This 600+ page report of the Corps is one of the most thorough documents the Corps has undertaken in its extremely long, 200+ year, history, also one of the most hotly debates over the past decade. Nearly a $75 million investment and we haven't built anything yet; this is just the studies. I think, and there are people of differing views on the subject matter, cannot say that the subject matter has not been given a full, thorough, in-depth inquiry and reevaluation as sort of a mid-course correction.

The statements presented this morning by particularly the Department of Agriculture on the economic impact, those of the Fish and Wildlife Service, and of EPA on the environmental concerns all resonate in this report and are of interest. I just want to say that I have been on this committee through the Tennessee Tombigbee Waterway dispute, the Muscle Shoals in South Carolina, the dispute over various dams on the Tennessee Valley Authority, Lock and Dam 26. In the end, we have been able to resolve all of these matters in the best public interest. The central flyway of the United States through which the Mississippi River runs and is the anchor for more than 40 percent of the migratory waterfowl of this Country, at one time as many as 300 million migratory waterfowl a year through the central flyway, testifies to the significance of this vast waterway and the basin which it drains, 2.6 million acres just in the Upper Miss.

Now, Mr. Chairman, I believe that we have the 1200 foot, 110-foot wide Lock and Dam 26. Experience has shown what we all suspected at the time this committee approved that project: that was not going to be adequate. You are going to unlock one little part of the bottleneck. And upriver there are going to be smaller locks that would require disengaging larger tows that could be ac-

commodate at Lock and Dam 26. That has certainly proven to be the case.

So while there may be some question about the economics of moving ahead with the entire seven lock expansion project, let us take a lesson from the St. Lawrence Seaway. It was built under enormous pressure and opposition from the eastern railroads and the eastern ports and by other rail interests, who stopped it for 50 years. When it was finally undertaken, it was because the Canadian government said we are going ahead with the seaway, with or without the United States. So President Eisenhower said, well, we can't have that, this is a national security interest, and moved ahead to build the two locks that we know as the Eisenhower and Snell locks. But they were built to no greater than the largest locks on the Mississippi River in 1930, and that forever doomed the St. Lawrence Seaway as an artery of international commerce.

If we stay put with the size of the existing locks outside of Lock and Dam 26, then we will see this entire basin where 40 percent of our Nation's agricultural exports original, where 35 percent of the Nation's industry is located, where 20 percent, one in five of every industrial job in America is located, we will see that continue to stagnate and downsize and decline, and we will be a fifth-rate economy in this heartland of America. That is not acceptable. It is not acceptable to press ahead without regard to the environment, either. But this report shows that we can do both.

Europe lives on the waterway, yet only 4 percent of all goods transported in France move by the waterway; 75 percent are transported on highways which are now inadequate to carry the goods. They are finding, in most recent reports, that air pollution and surface accidents are at unacceptable levels, and there is now underway a major effort by the French government to connect the Rhine and the Rhone Rivers with 150-mile canal that will increase the service. They are talking about mega-tows which are the size of one barge on our waterway. Those are small potatoes compared to what we move in the inland waterways of the United States.

And yet Europe is 340 million population, it is an economic engine that is rivaling or attempting to rival the United States, and while we fiddle over whether to move ahead with a major expansion of the inland waterway system in the United States, China is engaged in investing $200 billion in doubling the capacity of its ports. They are going to build the equivalent of our interstate highway system in the next 15 years. That is another $200 billion investment. They are doubling the capacity of their airports. They are expanding through the interior of the country to build new airports and regional facilities and general aviation airports.

We can't sit still. Our economy cannot stagnate. Yet, I insist as we move ahead, and I think the formula is that when the NAB study is completed later this year, of course, you continue with planning for the construction of the locks. Planning does not mean necessary moving ahead, but we need to get underway with the large-scale improvements. It is going to take 10, 15 years to get this done. We are not going to be able to do it overnight. But our grain producers, our transportation, our export sectors need to know that there is some certainty in the path ahead.

And one of the critics said, well, this is only going to mean a half cent reduction in cost per bushel of moving grain. You know what? Grain moves in international markets for as little as a quarter of a cent per bushel. And we found in the aftermath of Afghanistan, when we suspended grain sales to the Soviet Union, that we are not the only grain producers in the world, and we have got to be competitive.

So I say let us move ahead, keep in place the checks, and insist that the mitigation work is done concurrently with construction, planning in accordance with legislation I authored way back in the 1970s but has not been fully respected. I think with this formula we can move ahead to establish some certainty and keep controls and bounds on the environmental impacts as we move ahead to encourage the economic benefits of our great hinterland of the United States.

Thank you, Mr. Chairman.

Mr. DUNCAN. Well, thank you very much, Mr. Oberstar. Very good comments.

General Strock, I am going to go first for questions to Mr. Blumenauer, but I do want to ask you. You have heard several comments about the 12 years and the $70 million worth of studies and so forth, and it does seem that at some point we either need to decide to do something or not do something. As I said, I didn't see how you could study something to that extent. I do realize we can spend a billion dollars on studies if we want to, and there are people that make money off of these studies, and they would want us to do that, I am sure, but you get to a point where you are ripping off the taxpayers. But what I am getting at, when are we likely to see a final Chief's report?

General STROCK. Mr. Chairman, we share those concerns as well, and, obviously, because of the stops and starts on this study, the costs have increased, and the expansion of the study to include a balanced approach with ecosystem restorations added to the complexity and the cost. Sir, we released the study on May 6th for public review. That review will conclude at the end of July. We have completed all of the public meetings associated with that review. We think that we can complete the study by the end of September, and on that schedule we should have a Chief's report in November of 2004.

Mr. DUNCAN. All right. Thank you very much.

Mr. Blumenauer.

Mr. BLUMENAUER. Thank you, Mr. Chairman. I think that is an important point. We are five months out from being able to complete the process. I am a little concerned that we are seeing the Senate moving ahead. We haven't done this, and I think we ought to do it right, in my humble opinion.

One of the things that I am concerned about is, from my understanding, that barge traffic has been essentially flat for the last 20 years, and in recent years it has actually declined. Is that true or false? Is it going up, is there a lot of demand for it, or has it been flat?

General STROCK. Sir, perhaps Mr. Jamian would like to continue the comment. Sir, we had a tremendous increase in barge traffic in the early days of the system. Over the last 20 years it has begun

to level out. To make comparisons between years is very difficult because there are tremendous variables in crop yields and so forth.

Mr. BLUMENAUER. I understand. But just for my point of reference, for the last 20 years, has it in fact been basically flat and having declined in recent years?

General STROCK. Sir, it has been essentially flat for the last 20 years, but I would hesitate to say it has declined in recent years, because you can pick any two years on the cycle and see that.

Mr. BLUMENAUER. That is good enough for my purposes, just in terms of when we are talking about the largest public works project in the history of your organization, as I understand it, individual project, that barge traffic for 20 years has been flat.

General STROCK. Yes, sir.

Mr. BLUMENAUER. I read your testimony, Mr. Jamian. You were talking about the Volpe Study on page 2: "The Volpe Study states that reconfiguring cargo storage in terminal infrastructure below St. Louis might address shipper concerns while enhancing the efficiency of barge movements. However, this approach represents a fundamental change in river operations and is outside the scope of non-structural measures." Is there some reason you didn't repeat that phrase?

Mr. JAMIAN. No.

Mr. BLUMENAUER. But you stand by that, that is accurate?

Mr. JAMIAN. Yes.

Mr. BLUMENAUER. Okay. Thank you.

Mr. Chairman, one of the concerns I have, as our ranking member just mentioned, is that this is likely to take 10 or 15 years under the best of circumstances, for a situation now where barge traffic is essentially flat. It's not that there aren't problems, but that there are non-structural approaches, there are management efforts in terms of scheduling that could make a difference and could do so much sooner than 10 or 15 years, and for much less cost. If this is not accurate, I would appreciate any members of the panel giving me that information later. I don't have much time, but I wanted to put that on the record and go to my last question, General, because I appreciate what the Corps has been doing over the course of the last seven years. You and I have had this conversation before, and your predecessor, Mr. Flowers, is somebody that I think is really working to make sure that this process is open and that people are accountable. And I will say that many of the sins of the Corps that people have pointed to have been because outside forces have intervened, whether they are Congress or local economic or governmental interests all sort of mulling around. For instance, they are now trying to make a decision on a project that you are not going to make a final recommendation for another four or five months, if it goes right, and you are still taking information. You are doing it by the book, and I appreciate that. And I appreciate your reference to being open about this, and I think great strides have been made.

However, I am interested in the byplay in terms of ensuring that we have the full record. I had heard that there had been a request for correspondence between the Corps and the Office of Management and Budget that had been denied under a deliberative process privilege exemption because it was pre-decisional. But there is

a four-page letter from Mr. Woodley to Mr. Bolton that is referenced. And I don't want to get anybody in any trouble or do anything that is untoward, but I wondered if you knew about this letter and its contents, whether OMB has taken a position on this project since it is rushing ahead in the Senate, and whether or not the committee could have a copy of this letter.

General STROCK. Sir, I am aware of that letter, and it was written from the Assistant Secretary of the Army for Civil Works to Mr. Bolton, and I know that it was requested not from the Corps, but from the Assistant Secretary's office, and it was determined to be pre-decisional because it does have some commentary in there about the potential outcome of the study. I did read the letter; I received a copy; I was on distribution. We considered the potential impact of the letter and we felt that it was consistent with everything else that we have seen during the study and we elected to continue on the course we are on.

Mr. BLUMENAUER. I understand. My question was is it possible for the committee to have a copy of that letter.

General STROCK. Sir, I am not permitted to release that, and I think the position of the Administration is that letter was written from the Assistant Secretary to the Director of OMB, and it would be one of those two individuals that would be needed to be approached for the copy.

Mr. BLUMENAUER. Thank you very much, general.

General STROCK. Yes, sir.

Mr. BLUMENAUER. Mr. Chairman, I think it might help sort of round out the picture again, and I would like, if I could, to work with the chair and ranking member to just pursue the opportunity for us to be able to have a broader picture and obtain a copy of the letter for review. Thank you very much.

Mr. DUNCAN. Thank you very much.

Mr. Costello.

Mr. COSTELLO. Mr. Chairman, thank you.

Following up on Mr. Blumenauer's question about barge traffic on the Mississippi River, I wonder, Mr. Yates, in your testimony you state, and it has been predicted, I think, that over the next 15 years that the market share of exports of corn and other products will increase. And on page 1 of your testimony, and I won't go through the whole thing, but you talk about this year U.S. agriculture exports are forecast to reach a record high of 61.5 billion, due in no small part to heavy demand for corn, wheat, soybeans, and other commodities. And then on the next page you talk about the world market and the U.S. advantage in world grain markets has begun to erode.

In direct respond to Mr. Blumenauer's question to the General, do you anticipate, as you indicate in your testimony, and what do you have to back that up, that you expect traffic to increase on the river?

Mr. YATES. Yes. Well, if you look at the figures from 1993 to 2003 for corn exports, we have seen an increase of 52 percent. During the same period for soybeans we have seen an increase of exports by 78 percent. If we look at where we have been moving these products in the last couple of years, China has become a big market. China has a growing population and an improving econ-

omy. China also has some issues that are very delicate for them to deal with; they have some infrastructure problems such as water and also transportation. The water system where they irrigate, they are having trouble with having enough water to grow the grain that they normally grow. What we will see happen there is they will move to higher income crops and be importing more of their basic feed grains, and we will be there to supply that feed grain as they have become from exporters to now importers.

Mr. COSTELLO. What other countries would you expect for us to see an increase in exporting our goods, to China and where else?

Mr. YATES. Yes. Africa will be another country that will offer opportunities with, again, improving economies and incomes, but also we will see an improvement in South America. Even with Argentina and Brazil becoming major players, we also are seeing increasing populations down there and increasing economies where we can play in that market if we have an efficient transportation system.

Mr. COSTELLO. General, let me ask you a couple of questions. One, just a direct, flat-out question. Does the Administration support the authorization of the seven locks?

General STROCK. Sir, I do not know the answer to that question. The process in which the Administration will form their support or non-support is working now, and it will be based upon the Chief's report, which is delivered to them in November, sir. So I do not know.

Mr. COSTELLO. If, as Mr. Blumenauer suggested, there has been some interest in the Senate in moving forward, if the Senate theoretically authorized and came out of a conference committee, this project, through the Water Resources Development Act, this year, would the Administration support it?

General STROCK. Sir, again, I can't speak for the Administration. I can say, though, that that process is not unusual, to give a contingent authorization of a project based upon a favorable Chief's report.

Mr. COSTELLO. Do you think OMB would support it?

General STROCK. Sir, I would not speculate on that, no.

Mr. COSTELLO. Let me ask in your testimony, General, which it appears to me, and I understand where you are coming from, but it appears to me to be a little different than media reports over the past several months. The St. Louis Post Dispatch in particular had a series on the Upper Navigation study and what may or may not happen and what should or shouldn't happen. It, I think, has been understood that the Corps has wanted to move forward with this project and believes that we should in fact move forward. In your testimony you have adaptive implementation and management, and you talk about one approach would be to pursue the early implementation of a small-scale, non-structural and structural measures, and allow time for effectiveness of these non-structural measures to be evaluated.

I wonder if you might elaborate on that. It seems to me like you are saying let us go slow, slow this down, there is a way of doing it in segments. Can you explain a little bit what you mean by your testimony?

General STROCK. Yes, sir. We feel it would be unwise to simply stop and not do anything until we get it all totally resolved and

have all the questions answered, so what we are proposing, what the Division Commander is proposing is to move out on a kind of parallel track of implementing immediately non-structural methods, which are principally the use of switch boats, and some small-scale structural methods, mooring cells to facilitate the efficient passage through the locks. And those are the principal two measures we think should be immediately implemented. That is about a $200 million investment for the next 15 years until the next phase would kick in.

We think that is appropriate for a couple of reasons. One, we need to do something, and we see that as something that will be effective. And, secondly, we do need to, through experience, evaluate the effectiveness of less dramatic measures. So we think that is a prudent way to go. But at the same time we think that we should proceed on with the pre-engineering of replacement locks, should they be economically justified, so that we won't be four or five years behind the needs of the Nation on that waterway.

Mr. COSTELLO. Assuming for a second that the Congress authorizes and funds for the planning, engineering, and design for the lock extension, from a timing standpoint, if it was authorized and you were given money for planning and design this year, how long would it take to begin construction?

General STROCK. We could probably begin construction in about four or five years, sir.

Mr. COSTELLO. Four or five years from now.

General STROCK. Yes, sir.

Mr. COSTELLO. Is that under optimal funding?

General STROCK. That is at a full and efficient funding for the planning and design studies, yes, sir.

Mr. COSTELLO. And we understand that the study will be completed later this year. When will the Corps be in a position to make a recommendation to the Congress?

General STROCK. With the Chief's report in November, sir, that, of course, will go through the Assistant Secretary of the Army for Civil Works and through OMB prior to coming here to the Congress, so I would say in the next session you should be able to act on it.

Mr. COSTELLO. The next session lasts for a long time. Early next year or when are we talking?

General STROCK. Sir, I can't speak for how quickly it would move through the Administration, but certainly as quickly as they choose to move it, sir.

Mr. COSTELLO. So we really don't have a handle on it.

General STROCK. A matter of months, at best, I think, sir.

Mr. COSTELLO. Those of us who want to move forward and believe we should move forward with the project, we are concerned about the ecosystem, and my question to you is, do you believe that we in fact can move forward in tandem, with both the ecorestoration as well as construction? Can that be done?

General STROCK. Sir, I not only think it can be done, but it must be done because the synergy that can be achieved through some of the work in improving the navigation. We can tie that directly into the ecosystem measures. And to run them in a disconnected fashion would not be the most efficient use of resources.

Mr. COSTELLO. My last question, because I am out of time, but I hopefully will come back and have a few more questions. If there are conflicts between the navigation and the ecorestoration as we move in tandem, have you or your agency given thought to, if there is a conflict between the two, how these will be resolved?

And I have the same question for Ms. Garl as well.

General STROCK. Sir, I will have to answer that for the record because I am not sure. Intuitively I would say that we intend to continue to work with the Principals Group as we implement these measures to ensure that we are staying on track and achieving the results. That is a major aspect of adaptive management, to evaluate the results of what you try and determine whether or not you should continue or modify your approach. So I would anticipate we will continue to work with this group.

Mr. COSTELLO. But you believe it can and should be done in tandem.

General STROCK. Yes, sir.

Mr. COSTELLO. Okay.

Ms. Garl?

Ms. GARL. I will just say that EPA is very supportive of moving ahead in tandem, that we have long supported that approach and will continue to value the Corps' opportunities under the Principals Group and the Federal Regional Working Group to resolve any issues that might arise. I would be happy to provide a written statement to you with that respect in the future if that would be useful.

Mr. COSTELLO. Thank you.

Thank you, Mr. Chairman.

Mr. DUNCAN. General Strock, most ecosystem restoration projects are funded at 65 percent Federal, 35 percent local or non-Federal for construction, and then the operations and maintenance costs are generally funded entirely as non-Federal expenses, yet for this project we are proceeding forward figuring these at 100 percent Federal cost. Why is that?

General STROCK. Sir, there are two major factors and one aspect of consideration or complexity here. The two major ones are that there is consensus that the degradation of this ecosystem is largely the result of the Federal action in the creation and maintenance of a nine-foot navigation channel, and that much of the area we talk about is subject to that navigation servitude and, therefore, the Federal Government has a responsibility for mitigation of its efforts. The second, sir, is that, as Dr. Tuggle mentioned, this area includes about 285,000 acres of Federal wildlife and fish refuge that is a Federal responsibility. And those are the two principal reasons why most of the cost of this would be borne at 100 percent Federal expense.

And the complicating factor, sir, is that this is an interstate system, and five States are directly involved in this resolution. Where it is appropriate, we will seek out and gain local sponsors, and this is principally in the area of acquisition of floodplain, which is currently not subject to navigation servitude.

Mr. DUNCAN. Well, I will say this. A lot of people from other States would agree with those who say that some of this damage has been caused by local or State activities, such as expansion of

cities, farming activities, various things that are not bad things, but there are local and State causes here as well as Federal causes, I would think.

Mr. Jamian, what would you say to the people who say that we should first give emphasis or consider more non-structural measures such as tradeable permits, master scheduling, appointment scheduling, things of that nature? What do you say to the people who would say things like that, or what is your position?

Mr. JAMIAN. Well, as you know, the Army Corps of Engineers has contracted with the Volpe Center at the Department of Transportation to conduct a study, and that study did find that the excess lockage fees were not cost-effective. As far as the tradeable permits, Mr. Chairman, that you have mentioned, the Volpe Study did find that it would be infeasible at this time to do that. Tradeable permits may work well with the airline industry, where you have expected slots at terminals or airports and you know the exact arrivals of aircraft. In the business of the waterways, it is a little bit more difficult because you have all these variations, including weather; you have loading problems at the dock, timing issues with traffic on the river. So tradeable permits may not be cost-effective.

Mr. DUNCAN. Well, thank you very much.

Mr. Yates, you have talked about the great increase in the corn crops and various other things, and I think you said to Mr. Costello that you thought barge traffic would increase. Mr. Oberstar mentioned that many European countries are trying to greatly improve their locks and dams and their water transportation systems to keep down congestion and keep more vehicles off the highways and so forth. We have environmental groups that want fewer trucks on the highways, yet we have other environmental groups who oppose projects like we are talking about here.

Now, you have said that you think barge traffic is going to go up. What happens if we don't do anything?

Mr. YATES. Well, Mr. Chairman, right now, half of our corn is exported on the Mississippi River and a third of our soybeans are moved down the Mississippi River. Looking at it on a broader base, 20 percent of our corn nationally and 40 percent of our soybeans are exported. As a farmer myself, transportation is the key to us being able to stay in business, because we have got to be able to move our product just on time and competing in an international marketplace. We have to maintain all of these options. The trucking industry cannot do all of this alone, and we saw what happened with the rails last year on this bumper crop, which we are looking at another one right now; they could not move this crop. And one of the benefits of rail, though, to give them their due, was they took some of the pressure off by being able to move cargo across to the West coast, to Washington, to move some of the product into Asia. But the Mississippi River is still the key to that Midwest grain production region and keeping farmers profitable.

Mr. DUNCAN. Well, thank you very much.

Dr. Tuggle, one group says that halting this project has helped protect nearby wildlife refuges. Do you have any concern about that? Do you think that some of these improvements or all of these improvements can be made and still protect nearby wildlife refuges?

Mr. TUGGLE. There is very little doubt that we have, Mr. Chairman, primarily because of the comprehensive nature that the Corps has undertaken to evaluate the impacts of the navigation project. We have been extremely pleased at the way that we have been able to basically serve as environmental consultants for our trust resource responsibilities with the Corps of Engineers and working very closely with them to try to find a way to address the Nation's navigation needs, at the same time making very sure that we do not continue to have deteriorating effects on this most important environment. So the way that we have looked at this, primarily from our responsibilities for our trust resources, we don't have any questions about the way that they are approaching it from adaptive management perspective. We are very active in working with them and we cannot say enough about how this process has been laid out.

Mr. DUNCAN. Ms. Garl, does the EPA believe or feel, or do you have any concerns about proceeding with the navigation or construction improvements at the same time as the environmental or ecosystem work? Can we do those concurrently?

Ms. GARL. I believe we have been on record as being very supportive of doing these concurrently. As to the specifics of the proposed projects, it is really premature for me to describe EPA's position until we have completed our review of the draft EIS. But in general, absolutely, we are very supportive.

Mr. DUNCAN. All right, thank you very much. We need to move on to the second panel, but, Dr. Boozman or Mr. Gerlach, do either of you have any questions?

Well, thank you very much. You have been a very informative, very helpful panel, and we appreciate very much your input into this process.

I will ask that all of these witnesses take the seats at the table.

Representing the Upper Mississippi River Basin Association is Mr. Gary R. Clark, Director of the Illinois Office of Water Resources. He has come to us from Springfield, Illinois. Representing the Midwest Area River Coalition 2000 (MARC 2000) is Mr. Christopher J. Brescia, who is the President of that organization; he is from St. Louis. Representing the National Corn Growers Association is Mr. Fred Yoder, who is Chairman of the Board, and he is from Plain City, Ohio. Representing the National Academy of Sciences is Dr. John J. Boland, who is a Professor in the Department of Geography and Environmental Engineering at the Johns Hopkins University in Baltimore. And representing the Environmental Defense organization is Mr. Scott Faber, a Water Resources Specialist, and he is from Washington, D.C.

We appreciate very much each of you being here with us, and we will proceed in the order the witnesses are listed in the call of the hearing, and that means that Mr. Gary Clark, Mr. Clark, you will go first.

Once again, your full written statements will be made a part of the record. You can summarize or you can present your statements orally. And like the other witnesses, all the subcommittees in the Congress give their witnesses five minutes to make statements. We give our witnesses six minutes, but we cut you off after six minutes.

So, Mr. Clark, you may proceed.

TESTIMONY OF GARY R. CLARK, DIRECTOR, ILLINOIS OFFICE OF WATER RESOURCES, UPPER MISSISSIPPI RIVER BASIN ASSOCIATION; CHRISTOPHER J. BRESCIA, PRESIDENT, MIDWEST AREA RIVER COALITION 2000 (MARC 2000); FRED YODER, CHAIRMAN OF THE BOARD, NATIONAL CORN GROWERS ASSOCIATION; DR. JOHN J. BOLAND, PROFESSOR, DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL ENGINEERING, JOHNS HOPKINS UNIVERSITY, NATIONAL ACADEMY OF SCIENCES; AND SCOTT FABER, WATER RESOURCES SPECIALIST, ENVIRONMENTAL DEFENSE

Mr. CLARK. Thank you, Chairman Duncan and members of the subcommittee. My name is Gary Clark. I am presently the Director of the Office of Water Resources in the Illinois Department of Natural Resources. I serve as Governor Blagojevich's appointee to the Upper Mississippi River Basin Association and currently have the pleasure and honor of serving as the Chairman of this organization. Thus, I am here today on behalf of the UMRBA, an interstate organization that includes governors' and representatives from all five Upper Mississippi River Basin States, which include Illinois, Iowa, Minnesota, Missouri, and Wisconsin.

The UMRBA appreciates the opportunity to testify on the Corps of Engineers' proposed plan for navigation improvements and ecosystem restoration on the Upper Mississippi and Illinois Rivers. In short, the five basin States support the plan and urge Congress to authorize its navigation and ecosystem restoration components as an integrated package. The Corps' study has been lengthy and costly, as we recognize, but the resulting plan we feel is a reasonable and balanced approach to addressing the long-term needs previously expressed by other panel members today. We are confident it provides a solid foundation upon which to move forward.

Chairman and committee members, about a month ago the representatives of the UMRBA and their alternates got together in St. Paul to sit down and evaluate the Corps' draft integrated plan. We had experts on our committee there from engineering; we had fisheries biologists, ecosystem scientists, we had experts in commodity movements, intermodal transportation, production agriculture, and we set aside three hours to discuss the Corps' plans and our concerns regarding the plan; and we realized within the first 10 or 15 minutes of a roundtable discussion that the Corps did this time get it right. This revised, reformulated addressing and planning to address the needs of the system for both navigation and environment was done properly. The Corps did strike a balance in reaching an integrated system-wide plan that we feel is appropriate.

We appreciate their concerns for adaptive management. Addressing these needs in the next 15 years, with appropriate congressional checkpoints along the way to address the need to move forward on major features of the plan that are indeed costly and addressing the timing of these features for both ecosystem and navigation improvements. And we were pleasantly pleased with the plan that the Corps developed. They heard our concerns, they listened to our needs, and they responded and addressed the issues that we raised all throughout the planning process. So, therefore,

the five States in the UMRBA have given our complete and full support to the Corps' plan.

We look forward to working with Congress as this plan moves forward to authorization, and realize that we have a lot of work in the years ahead to seek the levels of funding we need over the next 15+ years to implement this integrated plan.

Thank you, Chairman and committee members.

Mr. DUNCAN. Well, thank you very much, Mr. Clark.

Mr. Brescia?

Mr. BRESCIA. Thank you, Mr. Chairman, Mr. Costello, and other members. My name is Chris Brescia. I am President of MARC 2000, a regional coalition including major agricultural commodity groups, industry transportation groups, utilities, labor groups, and many other industrial users of the river system. I am pleased to be here today.

MARC 2000 has been involved in this study since 1993. It has taken us a long time to reach a conclusion. We need to adjust the study process to limit paralysis by analysis. Conversely, I think it is important to note that this study has been open and transparent for all to critique. In 2001, the Corps proposed restructuring the study into a more comprehensive review of both navigation and ecosystem needs. MARC 2000 not only supported this approach, but also participated as a full partner with other groups.

The condition of the infrastructure on the Upper Miss Basin is endemic of the crisis we face as a Nation. According to a report by the National Ports and Waterways, our Country is experiencing what Western Europe faces post-World War II, when they addressed the need to modernize their 18th and 19th century river infrastructure. The report concludes that environmental benefits largely double the benefits to society and are the driving force behind increased reliance on the waterways to reduce truck and rail congestion.

Coincidentally, the U.S. Department of Transportation cautions that freight congestion on roads and rails in the U.S. will double in the next 25 years. The Corps' proposal for lock modernization could not come at a better time.

During the study we have learned that no economic model can predict growth over the next 50 years reliably. We need to continue developing better tools, but make sure that they are tested and validated before using it in an active study. The scenario-based approach used by the Corps allowed for a clear understanding of risks and demonstrated why locks are a justified investment. Either we join the rest of the world in recognizing the economic and environmental benefits of moving freight on the river or we consign regions of our Country to increased degradation of land and air resources. We must move toward increased use of our rivers for moving freight.

Almost 1,000 citizens attended this recent and final round of six hearings in the basin. They overwhelmingly endorsed the recommendation to move forward with lock modernization and ecosystem restoration.

Critics chastised us for producing the largest civil works project ever. This is the first system study initiated and now brought to conclusion, thus, the 50-year $2.4 billion recommendation far ex-

ceeds any project-specific study recommendation of the past. But that is like comparing apples to oranges. If divided into separate traditional projects, the average investment per project on the navigation side is just over $200 million per project, well in line with others around the Country.

MARC 2000 supports the recommendation to build twelve 1200-capacity locks on the Upper Miss and Illinois Rivers, starting with seven new ones in the first phase in a phased-in type of approach. This is different than the type of rehab investments we have been experiencing over the last 15 to 20 years, which are just there to help keep the existing capacity; and that is not working very well either, because we have lost about 10 percent of the capacity per year over the last 10 years for almost one whole lock year's loss of capacity.

While we support small-scale recommendations, we remain unconvinced that a world-class transportation system can rely on these alone. Nor can any of the non-structural alternatives evaluated make a difference. The only proposals worth considering are those that increase efficiency without imposing additional costs and can function within a flexible market structure. No scheduling alternative meeting these criteria has been tested and validated. This study documents that new locks will have limited impact on the environment of the river. They will provide many benefits in the form of less fuel consumed, fewer pollutants released, fewer accident, less highway and rail congestion, and especially less loss of life.

New locks will create many new jobs, over 3,000 jobs per year over the construction period estimated to be at 15 years initially, and probably 30 for the entire program 50 year recommended projects. Income produced from construction projects replicates itself in the region exponentially. Transportation savings stimulate other jobs in the communities. For example, a new industrial investment on the Mississippi River by a cement manufacturer is predicated on an efficient transportation system; it will produce over 1,000 construction jobs and 200 permanent community jobs. Our labor coalition members join industry and agriculture in supporting this outcome.

This investment in infrastructure is also critical for our global competitiveness: it sends a clear signal we are serious about competing in grain export markets; it helps secure our productivity and profitability of our farm communities; it will put our transportation system in sync with our international trade, foreign and farm policies, all focused on opening markets for our products.

The size of the full recommendation for ecosystem does give us pause. However, we support the initial recommended 15-year plan, with an opportunity to return for the balance. This new program must be funded through the construction account. Any attempt to add pressure on the O&M account, already experiencing over $100 million in critical backlog, should be resisted. The expansion of existing authorities warrants careful implementation. Ecosystem restoration needs to function within prescribed adaptive criteria that don't adversely affect the need for transportation availability, predictability, and reliability. Congress needs to address this directly.

Finally, funding for navigation improvements and ecosystem will come from different sources. These programs need to have the flexibility to proceed at their own pace to maximize the return on Federal investment.

Thank you, Mr. Chairman.

Mr. DUNCAN. Thank you very much. Paralysis by analysis. I think that is an appropriate comment here.

Mr. Yoder?

Mr. YODER. Good morning. Chairman Duncan, Ranking Member Costello, the rest of the members of the committee, thank you for letting me have the opportunity to testify on the preferred alternative for the Upper Mississippi River system. My name is Fred Yoder, and I am Chairman of the Board for the National Corn Growers Association. I am from Plain City, Ohio, where I grow corn, soybeans, and wheat.

NCGA represents more than 33,000 dues-paying members from 48 States.

Although many don't realize it, agriculture is the world's largest industry. Around the world, more and more people are involved in agriculture than all other occupations combined. While there are less than two million Americans actively involved in production agriculture, one out of every six jobs is tied to the industry. Agriculture supports every aspect of our economy.

U.S. farmers need efficient transportation networks as they move their crops and receive their inputs by barge, rail, and truck. The competition among these modes helps farmers receive the best price for their crops. Even though not all corn growers ship to the Mississippi River, all growers are impacted by it. The price of grain a farmer receives for his home market is based on the price of grain that moves on the river to the export markets. Efficient waterway transportation systems increase U.S. exports. Every year more than one billion bushels, about 60 percent of all grain exports, move to the export markets via the river.

The American farmers' international competitiveness has always hinged on the ability to move crops to market. The lower the cost of transportation, the lower the cost of the grain to the world market. Thus, the more grain farmers are able to sell.

We believe the future is bright for corn growers. About one out of every five rows of corn in the United States is exported. In 2003, corn exports totaled 51 million metric tons, with a value of $4.7 billion. So far this year, exports are up 50 million bushels. According to FAPRI, corn exports are forecast to grow 25 percent over the next decade. Yet, when we talk of infrastructure investments, we need to look at the trends that will drive the use of investments.

So what would happen if we didn't invest in the Upper Mississippi River? Intuitively, I can tell you we would not be able to export as forecasted or capture future opportunities. Ultimately, more farmers would leave the business. NCGA conducted a study in 2002 and found that increased congestion caused by a lack of investment would increase river transportation costs by a total of 17 cents per bushel. Export prices would increase by 13 cents per bushel. Farm gate earnings would decrease 3.6 cents per bushel. Transportation margins would decrease by 4 cents per bushel. This would translate into $562 million in lost farm income, $246 million

from reduced exports, and $316 million from lower prices and decreased domestic demand.

Without improvements, the Nation would also lose around 30,000 jobs, almost 15,000 in the corn-growing States and over 5,000 in non-farm States. The remaining jobs would be lost due to the impact of the Federal deficit, which would increase by $1.5 billion.

NCGA believes the preferred alternative will provide an efficient and modern national transportation system. The preferred alternative also meets the economic needs of the Midwest and the environmental needs of the Mississippi River system. It is a balanced, reasonable approach to a national transportation problem.

NCGA has a few concerns and suggestions. First, NCGA strongly encourages the Corps to keep management and funding for the navigation system separate from the ecosystem restoration component. While there are obvious linkages between the two, neither should be directly tied, nor allowed to negatively impact the other. Second, navigation should be managed so not to limit its future potential for growth. Projections for future demand in the world market illustrate the necessity for an efficient, reliable inland waterway transportation system. Third, NCGA believes the restoration program should be implemented in a thoughtful, carefully planned manner. The Corps should continually evaluate its progress and the impact restoration activities are having on the landscape and navigation.

In conclusion, an efficient transportation system is absolutely essential to U.S. agriculture for us to remain competitive and for farmers to stay in business. More than 70 years ago Congress had the foresight to invest in the Upper Mississippi River system, and the results were spectacular: we became the breadbasket of the world. Please, I am asking you today to help us remain competitive. If we fail to move forward, the world will eventually look elsewhere for their basic food commodities, and that is something that corn growers across the Country cannot accept.

I thank you again for the opportunity to testify, and I look forward to some of your questions.

Mr. DUNCAN. Very fine statement, Mr. Yoder. Thank you very much.

Dr. Boland?

Mr. BOLAND. Thank you, Mr. Chairman.

Speaking on behalf of the NRC Committee, we are very pleased to be invited to participate in this hearing, but before making a few brief comments, I need to say it comes at an awkward time for our Committee. As General Strock indicated earlier, we have thus far produced only a preliminary assessment of this Feasibility Study. We developed that report last fall, after our first meeting. Since then we have been working very hard developing a comprehensive evaluation of the final Feasibility Study as it exists today, and we anticipate that that report will be ready about the 1st of August. As I sit here today, though, I am unable to comment on that simply because the Committee has not reached its final decisions on the critical elements of that so far. We are working very hard on it.

But I can summarize quickly what we said last fall, all of which, to the best of my knowledge, remains the Committee's position. We were very gratified, at the time of the preliminary review, to see

the Corps approaching this as a dual objective study. The Upper Mississippi River and the river system is a natural resource of incalculable value to the Country; in fact, to the world. It has enormous ecological value, it has enormous economic value, among that being its value as a navigation system. To address navigation and ecosystem restoration as separate objectives runs a very big risk of lessening the value of that resource. Improvements to either one has the potential to degrade the other. And in our opinion, the only intelligent and feasible way to do it is to address them side-by-side and to be sure that all effects of all actions are considered.

We were also very pleased last fall to see the Corps' commitment to an adaptive management approach to this study. The Committee strongly supports that, and, in fact, I was interested here this morning to hear virtually every other witness supporting that. We believe in that and we are happy to hear that the Corps also believes in it.

Beyond those compliments, the Committee was, last fall, very critical of one of the economic models that was being used, that is, the ESSENCE model. In fact, the Committee concluded that the model was, in effect, useless. A previous NRC committee had come to the same conclusion in 2001 The Corps is also using another economic model, the Two Cost Model. The Committee had not had an opportunity to review that last fall when its report was written. There will be a review of that in the next report.

We were pleased to see the Corps using a scenario method to consider alternative futures. As has been observed many times, forecasting any movements on the river, including grain movements, 30, 40, 50 years in the future is impossible to do with any credibility. The logical way to do that is to look at all plausible futures and try to consider them all, and we approved of the Corps taking that approach. However, we expressed skepticism about the way the scenarios were constructed, and we have had an opportunity to review that further since then, and that is still under review.

We also expressed concern about the relative lack of attention to traffic management. That has been discussed extensively here this morning. And I should say that at the time of our writing our first report, we had not reviewed the Volpe Study; it was not in our hands until, I think, October of last year. We have since reviewed that and will be coming to some conclusions about that.

I think in conclusion I would say that this study has changed substantially since the interim Feasibility Study that we reviewed, and we have done a lot of work since then, and I hope that this committee will be able to see our next report when it is issued in August, and there will be a lot more information there.

Thank you.

Mr. DUNCAN. Thank you very much, Dr. Boland.

Mr. Faber?

Mr. FABER. Thank you, Mr. Chairman, Mr. Costello, Mr. Blumenauer, Mr. Boozman.

I feel it is important to mention the 900 pound gorilla that is in the room, which is that in 2001 the Army's Inspector General concluded that a key variable included in this study was manipulated

to get a certain outcome, and that is one of the reasons that the National Academy of Science is sitting at this panel today.

It is important to say that this is not like any other study. If these locks were constructed, they would certainly be the most expensive waterway project constructed in our Nation's history. They would almost certainly be the most controversial project constructed in our Nation's history. And, in our view, the traffic has simply not increased enough to date to justify construction of these locks. Traffic, as you have heard has been flat for decades; it has actually declined slightly in recent years, and it is not likely to grow soon. As the NAS, in its last report, generously put it, the Corps' traffic scenarios are unrealistic.

In addition, USDA's traffic forecasts have also been consistently optimistic. Mr. Costello will remember that we phased out farm subsidies in the mid-1990s in part because we believed that exports would grow so dramatically that we would no longer have to rely on counter-cyclical payments. Of course, that turned out to be incorrect.

And the preferred plan in the Corps' DEIS is based upon two assumptions which we think are equally optimistic. One is that traffic will grow dramatically in the coming decades, that it will grow far more dramatically than we have seen since the 1950s and 1960s; and the second is that demand for barges will be inelastic, meaning that farmers will continue to take their grain to barge terminals, even as the cost of shipping by barge increases. This analysis, according to now two panels of the NAS, ignores the fact that there are other destinations, such as ethanol plans and feedlots, that could potentially divert grain from the river as the cost of moving by barge grows. And we think it is important to take time to complete a credible assessment of whether or not farmers will indeed continue to ship their grain to the river as the cost of shipping by barge grows.

We stipulate that the river is incredibly important to shipping grain overseas. The question here is not whether or not the Mississippi River is important to farmers, important to the Midwest economy. The question is is traffic likely to grow and, as a result of that, are delays likely to grow. And recent evidence shows that indeed traffic has not grown for 20 years, that it is not likely to grow soon. We have not completed work on a model that would tell us with some certainty that traffic is indeed likely to grow. In fact, there is plenty of evidence to suggest that it is not in part because the fastest growing market for American grain today are domestic processing facilities like ethanol plants, not overseas markets like China.

This is not the first time that these export forecasts have been wrong. Indeed, only two of the 14 waterway projects constructed since World War II have attracted as much commercial traffic as the Corps predicted. The best example of that is Lock and Dam 26, the last lock and dam expansion project on the Upper Mississippi River. In 1982 the Corps came to the Congress and predicted that traffic would grow to 123 million tons by 2000. In fact, traffic has only grown to 73 million tons, or 60 percent of the amount of traffic that the Corps predicted.

We do think that there are immediate steps that can be taken to reduce the time it takes to move through a lock, such as helper boats, an appointment system or scheduling system, other small-scale measures that could be implemented right away at a fraction of the cost of longer locks. While we have heard today that we can't even begin to build locks perhaps for five years, in the best case scenario, it seems to us that we ought to make investments today in helper boats, mooring sails, other small-scale measures that could immediately reduce the time it takes to move through a lock while the Corps completes the work that it has already begun on a revised version of the ESSENCE model. That work will be done within 18 months. At that time we will have an answer to this question that I believe the NAS will feel is a credible answer, of whether or not to spend $2.3 billion or more on what would be the most expensive waterway project in history. It seems only sensible to wait and make sure that we are making a wise investment.

Let me just say two more things. One is these locks are not in disrepair. We have spent $900 million over the last 25 years rehabilitating these locks. We just completed major rehabilitation of Lock and Dam 25. We are in the process of completing the most expensive rehabilitation in the history of the lock and dam system on Lock and Dam 24, an $88 million rehabilitation project. In fact, the only lock that is in danger of failure right now in the Upper Mississippi River is Lock and Dam 19, not one of the locks that is the subject of this study.

It is also the case that we have many critical needs. Ports, indeed, need to be deepened. There are waterway capacity constraints that need to be eliminated. And it seems to us that it makes little sense to spend $191 million a year or more building locks that, as of now, we probably don't need, that is 10 percent of all Corps construction spending, when we have other urgent priorities, Chickamauga Lock among them.

So, in closing, I think I would just like to say that our view is that we should take the time to complete the analysis that shows whether or not these locks are completed, and, in the meantime, invest in small-scale measures like helper boats that can immediately reduce the time it takes to move through a lock at a fraction of the cost.

Mr. DUNCAN. All right, thank you very much, Mr. Faber.

I appreciate the testimony of all of the witnesses. It is clear that whatever is done here, this is going to have tremendous economic impact one way or the other, whether we do this project and all the work that is involved in it or whether we don't. I guess possibly because of my Scottish heritage, I am known as one of the tightest members in the Congress, and Mr. Blumenauer, I think, said that is an understatement, and it probably is. I hate to waste money and I hate to do projects that we don't need. On the other hand, I see that Mr. Yoder's group has this study that says by not doing this work we are losing $600 million to consumers, an additional $1.5 billion lost to the Federal budget, 33,000 jobs lost, trade deficit widened by $245 million, and $562 million lost in farm income.

You know, in the public policy arena, especially on major projects, you never reach a perfect level. You almost never reach 100 percent agreement on anything. So my opinion is that we ei-

ther need to do some of these things or we need not to do them. We are at a point where we need to stop the studies. You know, you can study things forever, but at some point you have to act. And I think if we are not at that point, we are very, very close to it, and we need to either not do this or do it, and we need some decisions made, and I think that is what we are going to have to do.

I have got two meetings at noon, and I don't know how I am going to get to both of them, but I am going to have to turn the chair over to Dr. Boozman. While he is assuming the chair, I am going to let Mr. Costello start his questions.

And I thank all of the witnesses for being with us. You have been very, very fine witnesses, in my opinion.

Mr. Costello.

Mr. COSTELLO. Mr. Chairman, thank you.

I guess for Mr. Clark and Mr. Brescia, and Mr. Yoder, I want you to respond, if you will, to Mr. Faber's testimony about traffic patterns, about the fact that, in his testimony, he indicates that traffic, in fact, will decline on the river; and, two, that most locks have been rehabilitated and that we have spent $900 million rehabilitating the locks along the river.

I wonder if we can start with you, Mr. Clark. Just a brief comment on both the traffic and the rehabilitation of the existing locks.

Mr. CLARK. Future projections in traffic are hard to predict, but we feel with some of the non-structural, mini-structural measures proposed by the Corps in this study, that there will be efficiencies added to the system and traffic will continue to grow in the future on the waterway system. We feel that these locks and dams are indeed antiquated. Some of those in the Illinois River, actually, our Department designed and built in the 1930s. There is increasing cost in operation, maintenance, rehab and repair in the Corps' budget to maintain and improve these locks, and we think this capital expenditure up front, spread over the next 15 or so years, is a worthwhile investment to keep this system effective and efficient into the future.

Mr. COSTELLO. Mr. Brescia?

Mr. BRESCIA. Mr. Chairman, Mr. Costello, traffic on the Upper Mississippi is an interesting and problematic question. What year would you like to start from? What year forward would you like to go to? I have five charts here with me. All of them show an increasing line. Does it show significant variability of up and down? Absolutely. But when you calculate the average annual, you get increasing lines.

Now, do you keep 1993 in the data? And what does that do to skew it? If you take 1993 out, the line is even significantly higher in increases. Has it been relatively flat over the last 10 years or so? Generally so, but with high years and low years.

So I think the point is that you have a market-driven demand for the type of products that traditionally move on the river system, and so you have to also look at the market-driven influences. The strong dollar of the United States has been instrumental in keeping our exports down as well in influencing this, according to a recent FAPRI, Food Agricultural Policy Research Institute, report

that has just come out. Good weather around the rest of the world has played a role in this.

But what is changing? Well, we just learned that China has now agreed that they are going to accept GMO corn into their markets, whereas, before they didn't. Our scenarios are premised on that increasing growth because of that. We have just learned that the European Community has agreed with the United States to do the same thing with corn. That is a premise that is in the growth scenarios, but not in the no growth scenario.

So we have factored all these things in and I think that is what is important. We can look backward to a certain extent, but when we look forward, we have to also consider items that haven't been on the river and will be in the future.

In terms of the investment in major rehab, I think I addressed that in my testimony only briefly, but, yes, we have invested in our major rehab, and that is to keep existing capacity. But even that hasn't done the job, because we have had unplanned closures on the river. Lock and Dam 27 in Granite City, Illinois will close this summer, unexpectedly. We will not move any traffic up and down the river between the Lower Mississippi and the Upper Mississippi because of unplanned closures. And we have lost 10 percent per year of our capacity due to these unplanned closures. So we are losing capacity, and that, in and of itself, is a deterrent to the use of the system.

Mr. COSTELLO. Mr. Yoder, briefly.

Mr. YODER. I think what we really have to do here is look at this in a common sense way. We have heard a lot of people talk today about how the river barge traffic is flat and that it is not increasing, but let us take a look at our interstate highway system and look at the traffic that is on there now. Whoever would have dreamed that it would be as useful as that? One of the reasons it is is because it is quick, it is efficient. And if you go ahead and take the river situation, we miss out on a lot of international sales because we just simply can't deliver the product on time. That is why we have to, at times, have to go by truck to a different location. So the question is if we don't do something, we will definitely seal our fate; it will continue to go down.

I happened to visit Brazil here a couple of years ago, and I firsthand witnessed them dredging the Amazon so they can go 1200 miles inland with a Panamex vessel. They are going to continue to do that, and they are not doing it in a very ecological sound manner. We have a plan before us here that is win-win. We can do it in an ecological sound manner; we can also increase the capacity that we can deliver these goods, and we can also keep us more inclined to be able to satisfy those markets worldwide.

So it is important that we understand—I guess you can say if you build it, it will come. I guarantee you the grain shippers in this Country, the first choice would be the river, and they will use it.

Mr. COSTELLO. Dr. Boland and Mr. Faber both have suggested, Chris, that traffic management should be attempted before we go forward with this so that we can fully evaluate if we should build the seven locks, but the traffic management is something that we should be looking at. In your testimony I think you have addressed that, but I would like you to address it here as well.

Mr. BRESCIA. Well, I think we all start from the theoretical premise, and I think this is where some of this is starting from. But if you can schedule other things, why can't you schedule the river? I certainly appreciate the National Academy of Science panel coming to the basin and learning about the river system so that they can evaluate those types of ideas more fully than they have in the past. I think it is important. We have a variable system. When a barge or tow leaves one part of the river and heads to another, there are all sorts of things that can happen to the product before it gets to its original destination, including the resale of some of those barges and the product to alternate destinations. So all of a sudden a barge that might have gone in a specific direction according to a specific pattern will change and stop and redirect some of the cargo, and the rest of it will move forward.

Those are the types of contingencies that allow it react to market-driven demand that you don't find on a train system. When it leaves, it goes to point A to point B, period; that is where it goes. Those are the type of things that the Volpe Study looked at, and those are the type of things that they evaluated just were not going to be able to function within the type of scheduling mechanism that is historically known.

Should we look at new stuff? Absolutely. Should we consider it? Absolutely. I think the industry is on record of saying if there is a system that can come up that doesn't add cost to the system—and that is an important criteria, because our entire water resource policy is based on lowering cost, not adding cost, so that we have greater competition. If a system can be demonstrated that allows for that flexibility in the marketplace to function and that does not add cost, they want to look at it and they want to see it. So we will cooperate with any studies that are ongoing.

Mr. YODER. Congressman, could I just add to that?

Mr. COSTELLO. Please.

Mr. YODER. If you use the analogy of a football game, a large 100,000 person stadium, you know, if you wanted to get everybody in there, you could probably just use one gate if you started 12 hours before the game and then 12 hours afterwards. We are really looking at the same analogy here. We harvest corn in the fall. The huge surge is in the fall; that is when we send a huge amount of corn down the river, and then later in early spring when it is more navigable. So it is really not practical to space out all of the corn shipments in a 12-month period; you have to do it when your customer wants it. And that is why we have to be—again, the common sense approach, when is the market telling us we need to send it and what is the most economical way we can do it.

Mr. COSTELLO. Mr. Chairman, I see I am out of time. Thank you.

Mr. BOOZMAN [ASSUMING CHAIR]. Mr. Blumenauer?

Mr. BLUMENAUER. Thank you.

I would just say, Mr. Yoder, that I am looking forward to the analysis from the various panels, because I view it being exactly the opposite; that using innovative scheduling activities is to avoid jamming everything through, but find ways to be able to use the resource more efficiently, not have one gate for the football team. Now, I may be wrong, but I will look forward to seeing the report.

There are several things that I would like us to put on the table. I would make just a comment about the analysis paralysis that Mr. Brescia mentioned. And I appreciate, Scott, you raising it, because I was going to. We have this being all bollixed up because people didn't do the study right to begin with. And that is not just some raving environmentalist, this is the Inspector General who followed up on these allegations. That is why we had to go back and we lost the time. And I hope we don't make that mistake again by rushing ahead before it is done and ending up putting is behind the eight ball.

I am very interested in the notion of global competitiveness, and I would like information from the panelists about where this global market is going to go. I avoided saying this from the first time around because I am from the Pacific Northwest and I don't want to be accused of being parochial, but I think the evidence is that a great deal of this product is being shipped through by rail, by increasingly large and efficient trains, through the Pacific Northwest to China, where it is growing, rather than going down the Upper Mississippi system, through the Gulf, through the antiquated Panama Canal, and on to Asia from there.

So I would like some information from you folks about where the shifting markets are going to be over the course of the next 10 years, and where they are going to be most efficiently serviced. My evidence suggests that there is a lot that has been going north via NAFTA, south to Mexico, and notwithstanding the straight shot down the Mississippi, but a lot of that has been going via rail.

I would like your evidence to the contrary.

Mr. YODER. Well, congressman, I would just like to—are you okay?

Mr. BLUMENAUER. I am getting all choked up.

Mr. YODER. This is a very choked up subject.

Some of the things that have happened, you are correct, a lot of the corn is actually going north by rail over to the West Coast and going out that way because a lot of Chinese goods are coming in there. But that is also necessitated because of the lack of reliability of getting things down on a timely manner.

What I have been told is that when we get the 1200-foot locks and dams in place, that that will again shift back down to the mouth of the Mississippi, where we can go ahead and do that.

Mr. BLUMENAUER. Well, I would like that in writing, because we are looking at some huge investments in other parts of the Country because we are being told exactly the opposite. So if you have got some evidence that indicates that this little project, 15 years from now, when it is done, if it is done, is going to change those dynamics, that would be very useful.

Mr. YODER. The other thing that we have not talked about is the benefits to domestic shipping. There is an awful lot of ethanol that is made in the Midwest from farmer-owned ethanol plants, and we foresee the future where we don't necessarily just ship all corn, but we can ship ethanol all the way down and through the canal and over to the West Coast to California, since they are one of our largest customers now.

Again, as I testified in my statement, the price of corn is based tremendously on the price on the river, and so whether we use the

river or not, it is really key to what we get. So when you eliminate that river transportation, then you have also severely hurt your price of corn.

Mr. BLUMENAUER. Of course, nobody is talking about eliminating the river for navigation.

Just my final request, I would like to see the five charts that show that the river traffic is going up rapidly, because all the evidence I have received to the contrary suggests that it is flat. And there will always be variations. You are not going to stop floods, you are not going to stop all sorts of other fluctuations. But I would like to see the charts.

Mr. YODER. Sure. I would be happy to, congressman. I think one of the documents I would refer you to is in the study itself. There are appendices outlining the projections that the Sparks Agency provided the Corps of Engineers on agricultural movements. The USDA testified today and the chief economist has provided documentation in the past suggesting that the growth over the next 10 years is going to be in a specific time frame, and that a third of that is expected to go down the Mississippi River.

And I can tell you, as a representative of having the major grain companies in our coalition, they have been adamant about the fact that they expect that the next 30 years are going to be similar to the last 30 years in terms of movement. They have invested heavily both in the Gulf and in the Pacific Northwest. Why? Because they want to make sure that there is increased competition between modes so that the lowest cost transportation is what results, and so they expect to continue to see those patterns.

And some of this is governed also by ocean freight movements, the larger boats, and where they go and what type of products are coming in and out of the Country. It is all a very sophisticated mix of push and pull that has been evaluated by the Corps and by the forecasting agencies.

Thank you, sir.

Mr. BLUMENAUER. Thank you.

Mr. BOOZMAN. I want to thank all of you so much for being here. This is such an important topic. I want to thank Mr. Duncan and Mr. Costello for having this hearing. But Mr. Duncan and Mr. Costello, besides being on water resources, have been working for the last two years trying to get us a good transportation bill with the rest of the committee, and they are on that conference right now.

I know that in Arkansas it is estimated that truck traffic by 2020 will grow 60 percent. So with on-time delivery, all of the demands that have pushed us away from the warehouse system, where now the new warehouses are barges, trucks, and trains, we really do have to get this right.

So, again, thank you all so much. I do appreciate the participation of all of you.

The meeting stands adjourned.

[Whereupon, at 12:13 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

REVIEW OF THE U.S. ARMY CORPS OF ENGINEERS RESTRUCTURED UPPER MISSISSIPPI RIVER-ILLINOIS WATERWAY FEASIBILITY STUDY

Statement of

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and
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Water Science and Technology Board
and
Transportation Research Board
National Research Council
The National Academies

before the

Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
U.S. House of Representatives

June 24, 2004

Good morning Mr. Chairman and members of the Committee. My name is John Boland. I am a professor emeritus in the Department of Geography and Environmental Engineering at Johns Hopkins University. I currently serve as the chairman of the Committee to Review the Corps of Engineers Restructured Upper Mississippi River-Illinois Waterway Draft Feasibility Study of the National Research Council. The Council is the operating arm of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine of The National Academies. The Academies operate under an 1863 charter from Congress to advise the government on matters of science and technology. Our committee was assembled last year in response to a request from the U.S. Army Corps of Engineers. We produced an initial report early this year and are scheduled to produce two more reports, one of which is due later this summer, with a final, summary report due early in 2005. The committee's next report represents a work in progress and, as such, I will limit my remarks this morning to summarizing key findings and recommendations from our first report.

The Upper Mississippi River-Illinois Waterway system has been described by Congress as a nationally significant ecosystem and a nationally significant commercial navigation system. Deterioration of either attribute is a loss to the nation. Moreover, these attributes are inter-connected; actions taken to enhance one often degrade the other. The committee was gratified to see the Corps recognize these issues by designing a navigation improvement/ecosystem restoration feasibility study so that all effects of all actions can be taken into account.

As most of you are aware, the impetus for the Corps of Engineers feasibility study is the congestion that towboats experience at several locks on the Upper Mississippi River and Illinois Waterway system. There are a total of 37 locks and dams on this system and all but four main chambers are 600 feet in length. Much of the system was constructed in the 1930s. Towboats that travel on this system push multiple barges and three-quarters of all tows are typically longer than 600 feet. This requires that tows be de-coupled in order to pass through a 600-foot lock chamber in two separate lockages, or as "double cuts." The commercial navigation industry asserts that a modernized system, including new locks of 1200 feet, will eliminate these double cuts and enhance the passage of today's longer tows through the lock and dam system, will thus ease congestion and reduce shipping delays and costs, and will thereby help ensure the competitiveness of U.S. grains in global grain markets. In its feasibility study, the Corps of Engineers is assessing the economic justification of replacing or extending thirteen locks on the Upper Mississippi River-Illinois Waterway system that currently experience significant delays. This is a complex analytical issue and the Corps of Engineers is considering several factors within its study, including the potential economic benefits of lock extensions, future levels of U.S. grain exports, and the prospects for promoting ecological restoration within the Upper Mississippi River-Illinois Waterway system. I will summarize the major findings and recommendations of our group's first report and will then be pleased to address questions you may have about our committee and its first report.

The Corps of Engineers has developed a simulation model, called "ESSENCE," to estimate future levels of cargo shipped on each pool of the waterway system, levels of waterway congestion, changes in shipping costs, and other factors related to the economics of future shipments and other commodities. The model is intended to convert a change in congestion (due to lock extension, for example) into an estimate of economic benefit. This type of economic modeling of commodity movements in an area as large as the Upper Mississippi and Illinois region is largely unprecedented, and the systems approach that the Corps has employed in this modeling effort represents an advance over previous methods. Fundamental flaws within the assumptions and functional forms used in the ESSENCE modeling framework, however, render its results of no use within in the feasibility study (this finding essentially replicates a finding from an earlier NRC committee that reviewed the feasibility study as it stood in 2001). The Corps is also employing a Tow Cost Model to help in the calculation of benefits of lock extensions. The committee has learned more about the "TCM" since its first report and it intends to issue comments on this model in our next report.

Our report also provided advice on how the Corps could improve its efforts in the realm of economic modeling. The improvements recommended, such as the gathering of additional data on U.S. and global grain market supply and demand factors and shipping rates, cannot be realized overnight. In order to provide the Corps adequate time to assemble these and other data and incorporate them into a credible modeling framework, our committee also recommended that the schedule for completing the feasibility study be relaxed. Our committee is acutely aware of and greatly respects the desire by many to move the feasibility study forward with dispatch. Decisions such as lock extensions on the Upper Mississippi River will always be surrounded by large degrees of uncertainty, and these decisions should not be indefinitely postponed in a never-ending quest for more and better data. Those decisions, however, should be based on the best scientific and economic data and models available. Our concern with regard to the study schedule was that it would not allow the Corps the time necessary to create a credible spatial equilibrium model.

Reliable forecasts of future grain exports are important to good investment decisions on the Upper Mississippi-Illinois system. The Corps contracted with a private firm—Sparks Companies, Inc., of Memphis, Tennessee—to create a set of long-term scenarios for future U.S. grain exports. The Sparks report offered five future scenarios. Four of those scenarios project future growth of U.S. grain exports, with the fifth scenario predicting slightly declining levels. Such predictions naturally contain great amounts of uncertainty; a forecast(s) of U.S. grain exports 10 years into the future is full of uncertainties, which become even larger as projections are extended farther into the future. A forecast of future increases in U.S. grain exports is by no means implausible, and four of the five forecasts in the Sparks report call for increases in grain exports. But these forecasts must be considered in light of the past 20 years of relatively stable levels of U.S. grain shipments. This apparent discrepancy has prompted skepticism within our committee but we reserved judgment on the scenarios until after we spoke with the authors of the Sparks Companies report. We had a very informative exchange with the

authors in St. Louis in December 2003 and we intend to issue comments on these scenarios in our next report.

The current system for managing waterway traffic on the Upper Mississippi River and Illinois Waterway system operates largely on a first-come, first-serve basis. It is possible that more systematic, nonstructural traffic management measures could result in improved management of the existing system and help reduce congestion on the waterway. A variety of measures could be employed, such as a scheduling system or a fee levied upon users of the locks during high-traffic periods. Until a system for better managing existing traffic levels is employed, it is not possible to accurately determine the benefits of lock extensions. The Corps should proceed as soon as practicable toward developing and implementing nonstructural means to help alleviate waterway traffic congestion.

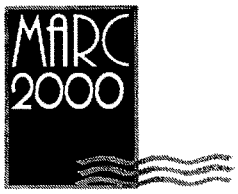
A large portion of the feasibility study is devoted to prospects for restoring some aspects of river ecology on the Upper Mississippi River and Illinois Waterway. These plans for "restoration" have evolved considerably since the feasibility study was initiated over ten years ago, including many developments since our first report that we are likely to comment on in our next two reports. The Corps' plans for ecosystem restoration within the feasibility study generally consist of a very large menu of possible "projects" that could be implemented. Some means, however, must be devised to prioritize efforts aimed at enhancing ecological conditions across this river system. That is, the possible number of actions is very large; resources for all these proposals would not be immediately available; and such efforts will necessarily proceed on different schedules, with a range of operations and implementation strategies and considerations. Modern theories of river science, supported by reports from other National Research Council committees and within the scientific literature, hold that the restoration of natural processes is the key to increasing the productivity of altered ecosystems such as the Upper Mississippi River. Examples of these processes include a river system's natural cycles of high and low flows and the connectivity between a river channel and its natural floodplain. The restoration of some degree of these natural processes holds the best promise for significant improvements to river ecology in the Upper Mississippi-Illinois system. Priority should therefore be given to restoration projects that aim to restore natural processes.

Ecosystem restoration actions on the Upper Mississippi River and Illinois Waterway will be conducted in a setting of ecological changes and uncertainties. The ecological conditions of the river system will continue to change, scientific knowledge of the system will evolve and improve, and there are likely to be shifts in social preferences regarding the management and trade-off decisions of the river's resources. Given this variety of unknowns, management actions designed to meet social and economic objectives should aim to be as flexible as practicable. Monitoring the outcomes of management actions and explicitly using this knowledge to help inform future actions will enhance adaptability in managing this river system. This approach is generally referred to as "adaptive management" and it is being used by the Corps and other federal agencies in a variety of settings across the nation, including this feasibility study. The

concept presents its own set of challenges, but it currently represents the most promising approach for resource management in large complex ecosystems such as the Upper Mississippi River-Illinois Waterway system. Adaptive management also holds promise in helping integrate the navigation and ecosystem components of the feasibility study. The Corps should thus implement the adaptive management approach through all aspects of the planning process.

In closing, let me note that, even as the committee has gathered information and refined its judgments regarding parts of the feasibility study, the study itself has undergone rapid change. During the last six months, the Corps has altered many aspects of the study and introduced new elements. The committee's second report, due later this summer, will address those changes.

Mr. Chairman, that concludes my remarks and I wish to thank you and your colleagues for inviting me to speak with you today. I would be pleased to discuss questions that you or your colleagues may have about our committee's report.



Testimony of Christopher J. Brescia
President, Midwest Area River Coalition 2000 (MARC 2000)
Before the
House Committee on Transportation and Infrastructure
Subcommittee on Water Resources and Environment
June 24, 2004

Chairman Duncan, Ranking Member Costello, Members of the Subcommittee, thank you for your invitation to appear before you today. My name is Christopher Brescia. I am president of the Midwest Area River Coalition 2000 (MARC 2000), a regional coalition of interests that include every facet of the economic structure in the Midwest, including agricultural, industrial, labor and transportation industries. Our membership spans the length of the Mississippi, Illinois, and Missouri Rivers in an effort to promote lock modernization in an environmentally responsible fashion. I am pleased to be here today to review the Draft Recommendations of the Corps of Engineers Upper Mississippi and Illinois River Navigation Study.

MARC 2000 has been involved in this evaluation since inception of the feasibility phase in 1993. We have participated in providing input, guidance and criticism over the last 11 years to a process that extended beyond necessity and could be a poster child for how future studies should not be structured if we are to have reasonable assessments in a timely fashion. Any proposals that have been suggested that would lengthy the study process should be rejected as counterproductive to the interests of this nation. It is also important to dispel any notion that the Upper Miss study process has been anything but open and transparent.

There are a few points I would like to highlight today:

First, because this is the first system study initiated and now brought to conclusion, the recommendations for navigation improvements far exceed any project-specific study conducted in the past. This is a logical outcome and one that deserves recognition as such. MARC 2000 supports the recommendation to build twelve 1200-foot capacity locks on the Upper Mississippi and Illinois Rivers, starting with seven new 1200-foot locks as prescribed by the Corps plan.

Second, this study changed course in 2001 to exceed its original mandate to evaluate future navigation infrastructure needs in the Upper Mississippi River Basin and incorporated a system review of ecosystem needs as well. We believe that a case has been made for initial ecosystem restoration with $1.46 billion funding with an opportunity to return for the balance following a re-evaluation report.

Third, the draft recommended plan expands on existing authorities in a fashion that warrant careful implementation. Ecosystem restoration within prescribed adaptive criteria that don't

adversely affect the market needs for the availability of a consistent and predictable inland waterway transportation system are key to success for achieving national benefits from this federal investment.

Finally, funding implementation of both navigation improvements and ecosystem restoration need to have the flexibility to proceed at their own pace in order to maximize a return on federal investments in two very different kinds of activities.

System Study Approach & Recommendations

Since the inception of this feasibility study, it was clear that this analysis would take more time than a typical project-specific study. Making sure than an investment in one lock project made sense within the context of the entire Upper Mississippi and Illinois Rivers would require a six-year effort, we were told. After close to twelve years, I'm sure there are recommendations that should be evaluated for shortening the time frame. In the meantime, our obvious macro national competitiveness needs have been obscured by arguments over micro analytical tools.

MARC 2000 fully supports the long-term recommendation to provide twelve 1200-foot lock capacity chambers on the Upper Mississippi and Illinois Rivers. We also support phasing in this approach with an immediate construction authorization of seven new 1200-foot locks at Upper Miss Locks and Dams 20, 21, 22, 24 and 25 and Illinois River locations at Peoria and Lagrange. Immediate implementation of mooring facilities and switchboats to assist congestion areas are a logical approach.

The Corps of Engineers recommendation for a 50-year $2.4 Billion program, if divided into separate projects would yield an average investment of just over $200 million per project – well in line with other projects around the country. Early on, the study identified the need to modernize 5 locks as a group on the Upper Miss and two on the Illinois. This realization confirmed industry experience with congestion and freight movements on the river system.

It is clear that improving the capacity of the locking structures on the Upper Miss and Illinois Rivers will not inordinately adversely affect the environment of the river. It will provide improved regional and national benefits in the form of less fuel consumed for moving the products similar distances via other modes, fewer pollutants into the air, much fewer accidents, less highway and rail congestion and especially less loss of life.

Mr. Chairman, the condition of the infrastructure in the Upper Mississippi Basin is endemic of the crisis we face as a nation. According to a recent report issued by the National Ports and Waterways, entitled "Domestic Water Transport Comparative Review," our country is experiencing what Western Europe faced post World War II when they were faced with the need to modernize their 18th and 19th century infrastructure.

The report's author, Dr. Anatoly Hochstein, identifies the fact that environmental benefits largely double the benefits to society and are the driving force behind increased reliance on the waterways to reduce truck and rail congestion. Our own U.S. Department of Transportation cautions that freight congestion on the roads and rails in the U.S. will double in the next 25

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years. This proposal for lock modernization in the Midwest could not come at a better time for the benefit of the nation and is truly a win-win proposal.

Building new locks will also provide a significant benefit to the nation and region in terms of job creation. Over 3,000 jobs per year will be created during the construction period estimated at 15 years initially and likely over 30 years for the entire navigation program. This direct stimulus to the region is the tip of the iceberg. As many on this committee are aware, income produced from construction projects replicates itself in the region exponentially. Such a significant level of investment would translate into a considerable ripple effect for the Midwest. Our labor coalition members and economic development groups roundly support this initiative because of this fact and that improved transportation efficiencies produce even more jobs in the basin.

Independent economic studies have documented that traffic moving on the Upper Miss River system supports over 400,000 full and part-time positions. Modernizing the infrastructure has a dual effect supporting this jobs base and growing this jobs base at a time when our economy needs it.

This investment in infrastructure is also critical for our nation's global competitiveness. First it sends a clear signal to our competitors that we are serious about continue to compete in grain export markets. Second, it will help secure the productivity and profitability of our farm communities in the Midwest. Finally, it will put our transportation system investments in sync with our international trade, foreign and farm policies – all focused on opening markets for our products.

MARC 2000's coalition members support this win-win approach to a federal investment that historically has returned $6 for every $1 invested and should continue to do so by providing real ongoing competition between modes to keep transportation costs competitive in a global market.

Restructured Study & Ecosystem Recommendations

In 2001, the Corps of Engineers proposed restructuring the navigation study into a more comprehensive review of both navigation and ecosystem needs. MARC 2000 not only supported this approach but willingly agreed to participate as a full partner in this collaborative process with other federal and state agencies and private nongovernmental groups.

The Corps long-term recommendation for ecosystem restoration does give us pause. We do not honestly know whether the recommendations, a compilation of known types of projects that have been effective locally, will produce the system wide results suggested. However, we do have confidence in the need to proceed with ecosystem restoration for the following reasons.

First, when the lock and dam system was put in place, the principal reason was to facilitate a competitive transportation system in the Midwest – a third coast if you will. The system obviously has been a huge success in promoting commercial movements of goods, saving the nation an estimated $1.5 billion in direct and indirect savings per year. At that time, the lock and dam system provide a wealth of documented environmental benefits as well. Just as we have

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seen the economic values decline due to age and capacity limitations, we have documented a decline in habitat diversity. It's time to provide a means by which that decline can be redressed.

Second, industry's experience in working with the Environmental Management Program, especially in water-level drawdown programs provided an understanding of the need to proceed carefully with stimuli to the ecosystem. Working collaboratively, industry, federal and state biologists have produced tangible benefits to the ecosystem while maintaining both commercial and recreational benefits. Many, if not all of the projects envisioned in the recommended plan build on this type of approach.

Finally, we do believe that the ecosystem projects envisioned can be implemented without adversely affecting the growth of navigation on the Upper Mississippi and Illinois Rivers. While that premise has been understood during the collaborative process – and those proposals adversely affecting growth have been rejected—Congress must expressly indicate this premise in order to make sure that adaptive management concepts, which are necessary to proceed cautiously and responsibly, don't create unknown conditions hampering long-term market assurance that the navigation system will be consistently available and reliable.

For these reasons, MARC 2000 supports the framework recommended in the Corps of Engineers recommendation and the first phase (15-year proposal) to launch a new ecosystem restoration program for the Upper Mississippi Basin. Through a logical and structured adaptive management approach, we can begin implementing those proposals the basin believes to be the most critical to redressing ecosystem decline and provide Congress with further documentation to proceed with higher levels of investment in future years.

Scheduling

The inland navigation system is different from trucking, rail or air freight services. These differences were evaluated by the study team and independent consultants found no credible option that was consistent with water resource policy and that did not impose additional cost. The industry currently adjusts traffic movements to account for delays at locks and other river system factors through use of the existing OMNI tracking system. An "N"up and "N"down lock schedule has been in place for years and during extreme conditions, industry self-help kicks in to facilitate major delays.

To date no scheduling scheme on the inland waterway system has been shown to work and industry is unconvinced one is workable. Increasing efficiency of existing traffic through a new mechanism that does not impose additional cost on the transportation carriers or the system and can function within the flexible market structure is the only means by which industry could participate.

Model Development

MARC 2000 has participated in virtually all discussions regarding the use of analytical tools in this study process. We were told early on in the study that a new model would provide a better analysis than the proven model used in past studies. ESSENCE, which has now been discredited

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by every entity that has viewed it, did not provide that new approach, in fact the use of ESSENCE in the first phase of this study only contributed to mass confusion. Our experience in this study confirmed that new models need to be developed in the research phase, tested and validated before being used in an active feasibility report. This study lost 3 important years due to this oversight.

Due to the extreme market and national competitive implications of not completing this study in a timely fashion, MARC 2000 supported the completion of this study with the well-established Tow Cost Model and understood the use of ESSENCE to sensitivity analysis for alternative elasticity assumptions, fully well aware of the deficiencies in the model. Fortunately, the scenario-based approach allowed for a clear understanding of the risks associated with not pursuing large-scale investments vs. those if we do pursue investments. Based on all published research on demand elasticity for barge freight on the Upper Mississippi Basin, complementary prognoses on overall freight demand on other modes and existing capacity limitations, the decision to make investments are clearly justified.

MARC 2000 supports the need to develop a more comprehensive model, while making the first round of investments in both our navigation infrastructure system and ecosystem restoration. However, we don't believe that any model will ever be developed that can replicate and consider all market variables affecting traffic movements on the Upper Mississippi or any other inland waterway system. Eventually, common sense and a vision for the future must guide the direction of our nation's investments. Either we join the rest of the world in recognizing the economic and environmental benefits of moving freight onto the river system or we consign regions of our country to increased degradation of land and air resources.

Funding Implementation

This system solution to navigation and ecosystem needs will likely be funded through different sources. On the navigation side, the Inland Waterway Trust Fund will provide for half the funding needs of new lock construction. Since 1980 over 40% of the funds collected by a $.20 tax on diesel fuel have come from traffic originating or terminating in the Upper Mississippi River study area. Trust Fund documents demonstrate that only about 15% have returned to the region. Access to these funds only for the purposes which they were intended is necessary for full efficient funding of lock construction over the next 15 years. It is important that such a funding stream be available for the nation to benefit from this timely investment.

There is no single cost-share funding mechanism set up for ecosystem restoration projects requiring cost-share partners. The majority of the programs recommended in the first 15 years are suggested at full federal cost. The remainder is subject to a 65/35 cost-share formula that will undoubtedly need a mechanism for implementation.

MARC 2000 believes that in order for these two important functions to move as rapidly as they can, that funding for both be left separate to avoid any confusion. It is also important that no arbitrary restrictions be put in place on either side that will impede full efficient funding.

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Authorized Purposes

The recommended plan calls for permitting the Corps of Engineers, in concert with other federal, state agencies and private groups, to maintain and operate the river for both navigation and ecosystem restoration. This plan is premised on a logical acknowledgement that the left hand needs to know what the right hand is doing for two key reasons. First, management understanding of the needs of both functions is important for choosing an appropriate course of action. Secondly, that understanding will allow for considering operations and construction functions that can serve both purposes, when possible.

MARC 2000 does support addressing both navigation and ecosystem needs within the operations of the river and under an ecosystem construction program, in a fashion that does not adversely affect navigation growth. MARC 2000 does not, at this time, support broad "integration" of operation and maintenance, nor blanket "dual purpose" authorization. These descriptions, without clear implementation criteria are too vague. Currently, the Operations and Maintenance account for the Upper Mississippi System is experiencing over $100 million critical backlog. Any attempt to add pressure to this account by broadening its use should be resisted.

Our members do support providing the Corps of Engineers with authority to pursue alterations in the operation and maintenance of the navigation system that provide increased ecosystem benefits without adversely affecting the reliability, availability and cost of operations. We also support creation of a more comprehensive ecosystem restoration authority that allows the Corps of Engineers, along with others in the basin, to take bold steps to rebuild islands that have disappeared, protect backwaters, clear backwaters and conduct many other types of initiatives listed in the Corps recommended plan.

Conclusion

The members of the MARC 2000 coalition include leadership groups among agricultural commodity groups, industry transportation groups, utilities, labor groups and many other industrial users of products that move on the river system.

We agree with an overwhelming number of citizens of our basin who took the time to attend public hearings over the last two weeks and some over the last 12 years. Those speaking at these hearings urged quick completion of this study, strong and definitive action by Congress in this session and quick approval by the President for a modernization program in the Midwest that provides for state-of-the-art 1200 foot locks and ecosystem modernization.

This program is about jobs for the nation, quality life for its citizens and preservation of our heritage on the Mississippi and Illinois Rivers. Thank you for your consideration. I would be pleased to answer any questions.

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Testimony
on
Upper Mississippi River and Illinois River Recommendations for Navigation Improvements and Ecosystem Restoration

before the
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
U.S. House of Representatives

by
Gary R. Clark
Director of the Illinois Office of Water Resources

on behalf of the
Upper Mississippi River Basin Association

June 24, 2004

Good morning, Chairman Duncan and members of the subcommittee. My name is Gary Clark and I am the Director of the Office of Water Resources in the Illinois Department of Natural Resources. I also serve as Governor Blagojevich's appointee to the Upper Mississippi River Basin Association (UMRBA) and have the honor of serving as that organization's chairman. Thus, I am here today on behalf of UMRBA, the interstate organization that includes Governors' representatives from all five basin States — Illinois, Iowa, Minnesota, Missouri, and Wisconsin.

UMRBA appreciates the opportunity to testify on the Corps of Engineers' proposed plan for navigation improvements and ecosystem restoration on the Upper Mississippi and Illinois Rivers. In short, the five basin States support that plan and urge Congress to authorize its navigation and ecosystem restoration components as an integrated package. The Corps' study has been lengthy and costly, but the resulting plan is a reasoned and balanced approach. We are confident it provides a solid foundation upon which to move forward.

Our testimony today addresses the following topics:

- Need for action
- Integrated plan and dual authority
- Balance
- Adaptive management
- Cost sharing
- Collaboration

However, before addressing each of these issues, I think it's important to provide a bit of context.

In 1978, the UMRBA's predecessor Commission was charged by Congress with evaluating the need for a second lock at Lock and Dam 26 and associated environmental needs on the Upper Mississippi River. When UMRBA was created in 1981, after the Commission's demise, we took the lead in promoting the Commission's recommendations. We are proud that the results of those efforts led Congress, in the 1986 Water Resources Development Act (WRDA), to authorize both a new lock at Lock and Dam 26 and the Environmental Management Program (EMP) to improve river habitat and monitor river health.

Similarly, UMRBA and each of its individual member States have actively participated in the Corps of Engineers' Upper Mississippi River and Illinois Waterway System Navigation Feasibility Study, since its inception in 1993. Representatives from the five States' natural resources, conservation, transportation, agriculture, and economic development agencies have attended countless meetings of the committees that the Corps of Engineers created to help guide the economic, engineering, and environmental analysis. In addition, designated representatives of the Governors have met regularly with the Corps of Engineers' study team over the past eleven years. While we have not always agreed, we have worked hard to fashion a plan that we believe is balanced. In particular, we support:

- Navigation improvements, including mooring facilities, switchboats, seven new locks, and related mitigation, within the framework of a $2.4 billion plan, with an initial authorization totaling $1.878 billion and further investments contingent upon an updated feasibility report.

- Ecosystem restoration actions, including island building, fish passage at dams, floodplain restoration, water level management, backwater and side channel restoration, wing dam and dike alterations, island and shoreline protection, improvements to topographic diversity, and switching to dam point control, within the framework of a $5.3 billion 50-year plan, with an initial authorization of $1.462 billion.

Need for Action

The Upper Mississippi River System serves a variety of critically important functions in the upper Midwest. It is a commercial navigation route, a home for birds and fish, a recreational haven, and a source of water for local communities and industry. While the Corps' study does not address all the uses, needs, and issues on the Upper Mississippi River System, it tackles two of the most important and closely related ones: navigation efficiency and ecosystem integrity.

Given that the Upper Mississippi River System runs through the agricultural heartland of this country, it should come as no surprise that it carries approximately 50 percent of the Nation's corn exports and 40 percent of the Nation's soybean exports. Our Midwest grain farmers depend on the river as a safe and reliable way to transport their products to international markets. Yet, the system is antiquated and increasingly inefficient, as a result of costly delays at many of the locks.

The river is also an ecologically rich and diverse system. The bottomland forests, islands, backwaters, side channels, and wetlands support over 270 species of birds, 57 species of

mammals, 45 species of amphibians and reptiles, 113 species of fish, and nearly 50 species of mussels. Despite this apparent abundance, the river ecosystem is becoming increasingly degraded. Backwaters and side channels are filling with sediment, much of the floodplain has lost its connection to the river, fish migration is impeded by the dams, islands are being eroded away, and the river's natural hydrologic processes have been altered as a result of impoundment.

These transportation and environmental problems are challenging, but not insurmountable. However, solving them will require more than the tools we currently have at our disposal. In particular, as the Corps of Engineers' proposed plan outlines, it will require both nonstructural and structural navigation improvements and a full suite of ecosystem restoration actions.

Integrated Plan and Dual Authority

When the study was restructured in 2001 to address both navigation and ecosystem needs, the foundation was laid for development of a truly integrated plan. The States enthusiastically supported the Corps' decision to restructure the study, consistent with our long-standing commitment to integrated management of the river. The five Governors gave expression to that commitment in 1997 when they issued a joint proclamation promoting "the pursuit of unified economic and environmental policies" for managing the Upper Mississippi River. Likewise, Congress recognized the dual nature of the Upper Mississippi River System when, in 1986, it declared the river to be both "a nationally significant ecosystem and a nationally significant commercial navigation system," and mandated that "the system shall be administered and regulated in recognition of its several purposes."* Congress now has the opportunity to make this balance a reality, by adding ecosystem restoration as a federally authorized project purpose on the Upper Mississippi River, thus providing a dual authority and mandating integrated planning and management by the Corps of Engineers.

Balance

Ecosystem restoration and navigation improvements must move forward in tandem, so that measurable and substantial progress can be made toward both goals. It will require a strong and durable commitment on the part of both Congress and the Administration, to advance both elements of this plan. Initially, this means authorizing the first increment of navigation improvements and ecosystem restoration together, in the context of a long-term (50 year) framework. On an annual basis, it will mean adequately funding both efforts, to ensure that progress is made in meeting the needs of both.

Adaptive Management

No plan is perfect and the world around us is constantly changing. So it is particularly important that we proceed incrementally and adaptively. Adaptive management involves evaluating our actions as we go, comparing the response to the anticipated results, and adjusting our next steps in light of what we learn. The Corps' recommended plan relies on this adaptive approach for both the navigation and ecosystem components of the plan. The States

* Section 1103(a)(2) of P.L. 99-662, the Water Resources Development Act of 1986.

are convinced that it reflects an appropriate balance of action and learning. Imperfect information should not keep us from moving forward. There are risks associated with inaction, as well as action. So we should take prudent steps forward, refine our evaluations, and build in checkpoints for future decisions.

Addressing navigation needs adaptively means proceeding with nonstructural measures, including switchboats and mooring facilities; initiating design of seven new 1200 foot locks, with Congressional checkpoints prior to construction; developing and testing a traffic scheduling system; developing improved economic models; and monitoring traffic and economic conditions. Additional future investments, including five lock extensions, would be dependent on further evaluation and Congressional authorization. Finally, and very importantly, mitigation of incremental traffic impacts would also be undertaken adaptively to ensure that mitigation measures are in place prior to actual traffic increases.

Addressing ecosystem needs adaptively means that we begin immediately to implement a full array of restoration techniques, including island building, fish passage at dams, floodplain restoration, water level management, backwater and side channel restoration, wing dam and dike alterations, island and shoreline protection, improvements to topographic diversity, and switching to dam point control. While the long-term plan envisions total investments of $5.3 billion over 50 years, we would begin with a $1.46 billion authorization for 15 years, to pursue the most cost-effective measure yielding the best gains in diversity. After that initial period, we will not only have made substantial progress in restoring the river's ecological functions, but we will also have greater understanding of the river's dynamic ecological processes and responses. This will be critical for defining the scope and nature of future investments.

Adaptive management in the context of ecosystem restoration will require clear goals, measures of progress, rigorous science, new ecological models, and enhanced data collection. Using our management actions not only to change the river system, but also learn about the river system is a smart way to do business. But it is not without cost. Approximately $272 million, or 19 percent of the cost of the initial 15-year ecosystem restoration plan, would be devoted to adaptive management. We urge Congress to consider explicitly recognizing the need for adaptive management in the authorizing legislation.

Cost Sharing

Both the navigation improvements and portions of the ecosystem restoration plan would be cost shared. Consistent with existing law, half of the costs of navigation improvements on the river system would be borne by the commercial navigation industry, which contributes approximately $100 million annually to the Inland Waterway Trust Fund. Ecosystem restoration would also be cost shared, in part, with nonfederal sponsors. However, in authorizing ecosystem restoration for the Upper Mississippi River System, it is critical that the Federal government's long-standing and unique responsibility on this river system be recognized. In particular, the Federal government's construction, operation, and maintenance of the navigation system over the past 70 years has had long-term cumulative environmental effects. Moreover, the Federal government is the largest single floodplain landowner,

including over 285,000 acres of national refuges along the river system. While the States are willing to share a portion of the ecosystem restoration costs, given the unique Federal footprint on this river, we believe that a significant portion of those costs must be fully federally funded. In particular, the States support the cost share strategy in the Corps' plan, which would provide 100 percent federal funding for the following: modifications to the structures and operations of existing projects, measures on Corps Project Lands, measures on lands in the National Refuge System, and measures in the main channel or directly connected backwater areas below the ordinary high water mark. Measures on other public or privately owned lands would be cost shared 65 percent federal/35 percent nonfederal. In addition, the costs of operation, maintenance, replacement, repair and rehabilitation would be assumed by the agency with management responsibility for the land on which the project is located.

The Corps' preferred plan also recommends a number of specific cost sharing provisions that the States support and believe will be critical to implementing cost shared projects, especially those involving land acquisition. In particular: a) nonprofit entities should be eligible to serve as nonfederal sponsors; b) the value of lands and other real estate rights required for a project, regardless of the date of acquisition, should be credited towards the nonfederal share and reimbursed to the nonfederal sponsor, if those costs exceed the nonfederal share; and 3) nonfederal sponsors should be eligible for credit for in-kind services.

Collaboration

We commend the Corps of Engineers for the collaborative approach it has employed in this extraordinarily complex study. It has been an open and transparent process, with opportunities for all interested parties to participate.

It will be equally important that the Corps implement the resulting plan in collaboration with the basin States and other Federal agencies having river-related responsibilities. Consultation and coordination will be necessary on scientific and technical matters, as well as policy issues. However, by utilizing existing institutions and adapting them as necessary, we can avoid the establishment of new and potentially redundant bureaucracies.

In closing, Mr. Chairman, we want to thank you for holding this hearing on the Corps' plan for navigation improvements and ecosystem restoration on the Upper Mississippi and Illinois Rivers. UMRBA pledges to work with Congress to develop legislation that authorizes the plan. In particular, I invite you to call upon UMRBA's Executive Director, Holly Stoerker (651-224-2880) for assistance or additional information.

Thank you again for the opportunity to testify today. I welcome any questions you may have.

Testimony of Scott Faber
Water Resources Specialist
Environmental Defense

Before the Subcommittee on Water Resources and the Environment
Of the House Committee on Transportation and Infrastructure

June 24, 2004

Thank you for the opportunity to testify. My name is Scott Faber and I am a water resources specialist for Environmental Defense.

Our organization strongly opposes authorization of longer Mississippi and Illinois river locks, and instead urges the Committee to authorize the implementation of small-scale measures, like scheduling and helper boats, until the U.S. Army Corps of Engineers completes a credible, peer-reviewed assessment of this controversial $2.3 billion waterway project. We also urge the Committee to support adequate, guaranteed, prioritized restoration funding that is guided by sound science.

As you know, the Corps has proposed to build seven new locks and extend the length of five other locks on the Upper Mississippi and Illinois rivers. This proposal would be the most expensive waterway project in American history.

Since the Army's Inspector General in 2001 concluded that Corps officials manipulated this study to support longer locks, two panels of the National Academy of Sciences have since concluded that the Corps is employing economic tools that exaggerate the benefits of this project, and that longer locks could not be fairly evaluated until the Corps has implemented congestion management measures such as helper boats and scheduling.

We believe Congress should reject longer locks and instead support small-scale measures for several reasons.

First, river traffic is declining. River traffic has been flat since 1979 and has actually declined in recent years. Nonetheless, the Corps assumes under most "scenarios" that traffic will grow dramatically in the next few decades. Two panels of the National Academy of Sciences have called these Corps' traffic "scenarios" unrealistic, and have further said that these qualitative scenarios are not a proper substitute for actual traffic forecasts. Corps traffic projections have been wrong before – most recently for Lock and Dam 26 on the Mississippi River. Only 60 percent of the traffic the Corps predicted would pass through expanded Lock and Dam 26 by 2000 has actually materialized. In fact, only 2 of 14 waterway projects constructed since World War II for which data is available have attracted as much commercial traffic as the Corps predicted. In this case, the Corps forecast in 1997 that commercial traffic passing through Lock and Dam 25 would reach 50.3 million tons by 2003. In fact, only 33.7 million tons of cargo moved through Lock and Dam 25 in 2003 – the lowest amount since 1999. Traffic has fallen further in 2004: the number of barges processed through Lock and Dam 25 has fallen 19

percent when compared to the spring of 2003. As a result, delays at Lock and Dam 25 and other locks the Corps proposes to replace have also fallen.

Second, domestic demand for grain and oilseeds is growing. The fastest growing market for American grain is domestic processing facilities such as ethanol production plants, not foreign markets, and value-added products made from grain are shipped by truck and rail, not by barge. While exports of grain and oil seeds have been flat since 1979, domestic processing has grown significantly in recent years. However, two panels of the National Academy of Sciences have concluded that the Corps is underestimating the importance of these alternatives to barge. In particular, the Corps is employing two models that assumes that demand for barges is either completely or almost completely inelastic – that is, that farmers continue to ship their grain to the Mississippi even when the cost of shipping by barge increases. In fact, demand for barge is very elastic, and this project is simply not justified under any scenario of traffic growth when the Corps employs a third model that assumes that farmers will take their grain to other destinations and modes when the cost of transportation by barge increases.

Third, value-added processing helps farmers and rural communities. Converting grain and oilseeds into value-added products increases the price farmers can earn for their grain and oilseeds and creates jobs in rural communities. By contrast, exports will probably not increase the price farmers can earn, and ships jobs overseas. In addition, building longer locks will not improve our ability to compete with other exporters. Building longer locks will reduce the length of a round trip from Clinton to New Orleans and back to Clinton by less than one day, and reduce the price of shipping grain by a fraction of a penny per bushel. Currently, a round trip between Clinton and New Orleans takes 840 hours. At worst, delays at locks add 60 hours to this trip. Building longer locks would reduce these delays by only 22 hours. The only beneficiary of longer locks will be barge companies that could resell the time that is now "wasted" at locks. But, reselling this time – approximately 720,000 hours in 2003 – at $13.49 per hour - would only generate $10 million annually in new revenue for barge companies. By contrast, the annual cost of longer locks will be $191 million, according to the Corps – resulting in a net loss to the nation of $181 million annually. Building longer locks will undoubtedly create jobs in Illinois and Missouri – at the expense of jobs in other states. According to the Corps, other states would lose 564 jobs and $32.2 million in income if the longer locks are constructed.

Fourth, small-scale management measures can relieve congestion now. Corps studies show that inexpensive small-scale measures like traffic scheduling and helper boats could reduce lockage times by 20 minutes or more. Scheduling has successfully reduced delays as well as fuel and labor costs on other waterways. Unlike new or expanded locks that will take decades to build, small-scale measures can be implemented right away at a fraction of the cost. Two panels of the National Academy of Sciences have urged the Corps to implement these measures, noting that longer locks cannot be fairly evaluated until small-scale measures are exhausted. While longer locks will cost $2.3 billion, small-scale measures would cost less than $100 million. Fortunately, these locks are not near their capacity. According to the Corps, only three of the seven locks the Corps now

proposes to replace are used more than 80 percent of the time – two of the locks are used less than 50 percent of the time. In addition, capacity has increased in recent years: between 1989 and 2003, lock capacity at Locks 20, 21, 22, 24 and 25 has increased by as much as 8 percent.

Fifth, most locks have recently been rehabilitated. The locks and dams are not falling into disrepair. In fact, the Corps has spent more than $900 million rehabilitating these locks and dams since 1975, extending the productive life of existing locks and dams for decades. As the Corps noted in a February 2004 report, "the life of existing locks and dams and their components can be extended with normal periodic rehabilitation for another 50 years and match the design life of any new construction." The Corps anticipates that locks will only need to be rehabilitated once or twice in the next 50 years, and that future rehabilitation needs will be only $25 to $30 million per lock, and $15 million per dam, for each rehabilitation cycle. Overall, annual rehabilitation cost will average only $65 million, according to the Corps. By contrast, construction of new locks will annually cost $191 million – or three times as much as rehabilitation.

Sixth, the nation has more urgent infrastructure needs. As you know, the Corps has a significant backlog of port, waterway, flood control and restoration projects in states like Alaska and Tennessee that are far more urgently needed and far more clearly justified than longer Mississippi River locks. Diverting at least $191 million annually – or approximately 10 percent of all Corps construction funding – for decades to build a project based upon unrealistic traffic scenarios and unsupported assumptions would needlessly deprive other projects of desperately needed funds.

Among these needs is the restoration of the Upper Mississippi River and Illinois rivers. Each year, thousands of acres of critical habitat are being lost. By 2050, some river reaches will lose 20 to 30 percent of their connected backwaters, which serve as critical nurseries for wildlife. Although these resources support more than 600 species and 40 percent of North America's migrating waterfowl, far more than fish and wildlife is at stake. The natural resources of the Upper Mississippi and Illinois rivers are also powerful economic engines, supporting about 140,000 jobs and generating more than $6 billion in annual spending.

To reverse the loss of habitat along the Upper Mississippi River, we urge the Committee to support:

- **Adequate Restoration Funding** – We urge you to provide $170 million annually for the Environmental Management Program, including $100 million annually for habitat restoration, $35 million annually for the acquisition of easements of fee title from willing sellers, $25 million annually for research and monitoring, and $10 million annually for riverfront revitalization. We also urge you to make the maintenance of EMP projects a federal responsibility.

- **Guaranteed, Balanced and Prioritized Funding** – We urge you to explicitly link restoration funding to annual funding for operations and maintenance to

ensure balanced funding in the future. We also urge you to give priority to projects that restore natural river processes, such as floodplain restoration, tributary confluence restoration and dam reforms.

- **Sound Science** – We urge you to create an advisory committee of scientists with the expertise to review and comment upon habitat needs, pool plans, project criteria, selection and sequencing to ensure that the Corps is using the best available science.

In conclusion, we urge the Committee to reject longer locks in favor of small-scale measures while the Corps completes a credible, peer-reviewed assessment of lock expansion. As two panels of the NAS have noted, the Corps continues to use tools and assumptions that grossly overstate the need for the nation's most expensive waterway project. Fortunately, small-scale measures can immediately reduce congestion at a fraction of the cost of longer locks. We have time. Lock construction cannot begin for three years and will take decades to complete.

Far more than the future of the Mississippi River is at stake. This study also serves as a referendum on the Corps' ability to complete credible studies of water projects. This Committee should not reward faulty analysis by authorizing construction, but should instead reject longer locks and demand a fair, accurate assessment of this scandal-plagued project.

STATEMENT OF JERRI-ANNE GARL
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 5
DIRECTOR, OFFICE OF STRATEGIC ENVIRONMENTAL ANALYSIS

BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
OF THE U.S. HOUSE OF REPRESENTATIVES

June 24, 2004

Good morning Mr. Chairman and Members of the Committee. I am Jerri-Anne Garl, Director of the Office of Strategic Environmental Analysis in the U.S. Environmental Protection Agency, Region 5. I am the Regional senior manager for the National Environmental Policy Act (NEPA) program. I welcome this opportunity to speak to you today about the Upper Mississippi River/Illinois Waterway Navigation Feasibility Study (Feasibility Study).

EPA has a unique environmental review responsibility with regards to studies like the ongoing Feasibility Study. First, under the National Environmental Policy Act (NEPA), federal agencies are required: 1) to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions and, 2) to publicly disclose the information. To meet this requirement, federal agencies prepare a detailed statement known as an Environmental Impact Statement (EIS) for proposed actions that will significantly affect the environment. Under Section 309 of the Clean Air Act, EPA is then required to review and publicly comment on certain matters, including the environmental impacts of major federal actions that are the subject of EISs.

Second, under Section 404 of the Clean Water Act, EPA has responsibilities in connection with the regulation of the discharge of dredged and fill material into waters of the United States. Activities that are regulated under this program include fills for development, water resource projects, such as the navigation improvements proposed by the Corps for the Upper Mississippi River and Illinois Waterway, and other kinds of infrastructure development. The basic premise of the program is that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The permit applicant must demonstrate that steps have been taken to: 1) avoid adverse ecological impacts where practicable; 2) minimize potential remaining adverse ecological impacts; and 3) restore or create wetlands to offset any remaining, unavoidable impacts.

Since the initiation of the Feasibility Study in 1993, EPA has been working with the Corps of Engineers on the study. Region 5, headquartered in Chicago, has been the lead region for this involvement, with support from our Region 7 office in Kansas City, since our two regions share the Upper Mississippi River basin. This involvement has occurred through our participation on the Navigation Environmental Coordination Committee (NECC). This committee, made up of Federal, State, and non government stakeholders, provided input on the overall project direction and types of environmental analyses that are needed for the Feasibility Study. After a brief halt in the study process in 2000, necessitated by Corps policy review and completion of a National Research Council (NRC) review, the Corps established a Federal Principals Group in June 2001 to seek ongoing guidance from other key Federal agencies on

responding to the NRC recommendations and restructuring the study. Our Region's role evolved to include supporting our Agency's representatives on the Principals Group. Region 5 also participates on the Federal Regional Workgroup to provide technical support and to serve as a liaison between EPA Headquarters and the regional stakeholders. Through our continued participation on the NECC and Federal Regional Working Group, and through our support to EPA representatives on the Principals Group, Region 5 has continued to analyze and provide input on this project to the Corps of Engineers.

The Corps established a collaborative process in March 2001 that sought input from EPA and from other stakeholders of the Upper Mississippi River system. Through this process, the Corps has developed a framework for the Feasibility Study that integrates the dual goals of environmental sustainability and efficient navigation. EPA had long advocated for ecosystem restoration to be fully considered in the Feasibility Study, and we were very supportive of the Corps's decision to add restoration as a fundamental project purpose. The natural habitat has been damaged significantly by the construction and operation of the navigation channel. The Corps's consideration of ecosystem restoration needs is intended to help offset the ongoing and long-term cumulative impacts of this channel on the ecology of the river.

The ecosystem of these two rivers and their flood plains is dynamic and complex. Including ecosystem restoration in the Feasibility Study will help facilitate sustainable river conditions that will echo the Corps's long-term goals of efficient navigation and natural resource health, goals that EPA shares. The dual purpose approach will greatly benefit a river system

that serves as a major artery for transporting bulk commodities, but also is a nationally treasured ecological resource.

EPA remains committed to this collaborative process with the Corps and other stakeholders of the Upper Mississippi River System as the Feasibility Study is completed and implementation decisions are made.

Mr. Chairman, this concludes EPA's testimony. I appreciate your interest in hearing from EPA, and would be pleased to answer any questions you or the Members of the Subcommittee may have.

Testimony by the Honorable Gil Gutknecht

Subcommittee on Water Resources and Environment

June 24, 2004

Mr. Chairman, Members of the Subcommittee, good morning and thank you for allowing me to speak before you today on the navigation improvements and ecosystem restoration of the Mississippi River and its importance to the people of Minnesota.

There are multiple uses of the Mississippi River – it is an important natural resource, a place of recreation for thousands of Americans, and an essential transportation link in the national economy.

The Upper Mississippi valley provides habitat for 305 species of birds, 57 species of mammals, 45 species of amphibians and reptiles, and 134 species of fish. There are even bald eagles in the area, which can be seen year-round.

Tundra swans migrate each year from Alaska and northern Canada to the Chesapeake Bay, stopping at the Mississippi River on their trip south. One place they stop is Rieck's Lake, a part of the river, where they stay for a few weeks until the river freezes over. There are sometimes up to 30,000 of these majestic birds along our little slice of the Mississippi. I have visited Rieck's Lake and have enjoyed watching these magnificent creatures.

The Upper Mississippi is a haven for boating, fishing, hunting and other forms of recreation. Locals and tourists alike enjoy year-round fishing for walleye, northern pike, sauger, bass, perch, crappies, sunfish, and catfish up and down the river. On summer days, thousands of private boaters enjoy the river, and hunters enjoy harvesting ducks in the fall.

The water supply for communities along the river depends on pools created by the locks and dams of the Mississippi River. The Twin Cities and St. Louis, as well as countless small towns, rely on the river to provide a stable source of water.

Our nation's economy is also dependant on the Mississippi river. In 1999, over 151 million tons of commodities moved on the waterways of the river system with a combined value of nearly $24 billion.

Minnesota alone sent about $1.4 billion worth of grain down the river –most of it traveled to New Orleans and Baton Rouge for export to foreign markets. About 70 percent of our country's agricultural exports travel along the Mississippi. The Upper Mississippi supports more than 400,000 jobs in manufacturing, agriculture, and shipping – all of which in turn support local businesses.

But the river needs our help to maintain – and improve – its multiple uses. The day-to-day wear and tear on the river has taken its toll – shorelines are eroding, locks are breaking down, and

habitat for wildlife is disappearing. The locks on the Mississippi river were designed for a 50 year life-span and are now over 70 years old. Today's barge traffic is significantly different than when the locks were designed. The dilapidated state of the system coupled with modern barge traffic has caused delays and other problems on the river.

Over time, Rieck's Lake's open water has been reduced by about 90 percent due to erosion, sedimentation, and other developments along the river that have slowed the waters. We need to restore the natural features of Rieck's Lake water resources to enhance the features that attract Tundra Swans and other migratory waterfowl to the lake.

Fortunately, there is light at the end of the tunnel. The Army Corps of Engineers Navigation Study, which has had significant problems over the years, has finally neared completion. The Corps' preferred alternative is a balanced, reasonable approach that will enhance all of our uses for the Upper Mississippi River System. They have put together a plan for lock reconstruction and ecosystem restoration to be completed over the next 50 years to ensure that all of the multiple uses of the river will be maintained and improved.

By improving navigation on the Mississippi, we can reduce traffic on our roadways and reduce pollution. A typical tow of 15 barges down the river can carry as much as 870 semi-trucks with 60 percent less emissions. Unfortunately, the current locks are only 600 feet in length. The length of 15 barges averages about 1,100 feet – so towboats have to drop off half their barges in order to pass through the locks, and then reconnect, and then repeat the procedure upon arriving at the next lock. Building 1,200 foot locks will cut dock time and costs – and those savings are passed on to farmers, manufacturers, and consumers, creating jobs for our economy.

The Corps also proposes billions of dollars to help restore the river's ecosystem to promote wildlife and return the river to its natural cycles. This investment will promote a more natural state for the river, improve wildlife habitat, benefit recreational use, and create a more sustainable system.

While the Corps proposal is a very long-term plan, there are steps that the Committee should take now as Congress works to reauthorize the Water Resources Development Act. I was pleased that yesterday's Senate Committee Mark of the bill included the most critical components for the next 15 years. This will accomplish the most pressing transportation and ecosystem restoration and move us toward improved use of the river.

Provisions relating to the Upper Mississippi River in the bill were largely based on the Corps's Preferred Alternative and S. 2470 introduced by Senator Kit Bond and a Bipartisan group of Senators from along the river. I am working with House Members on companion legislation that will provide significant funding for a balanced approach to the river's multiple uses.

The time to act is now – every day America is losing profits due to the inefficiency of the current navigation system. At the same time we have the chance to invest in our environment and create an improved river ecosystem.

Thank you for this opportunity to testify.

Testimony of U.S. Representative Kenny C. Hulshof
Submitted to the Subcommittee on Water Resources and Environment,
U.S. House Committee on Transportation and Infrastructure
June 24, 2004

Chairman Duncan and Ranking Member Costello: I apologize in advance for not being able to present this testimony in person; however, I certainly appreciate having the opportunity to provide your subcommittee with my thoughts relating to the need to invest in transportation and ecosystem improvements in the Upper Mississippi River Basin. I look forward to working with you to formulate a plan that will best serve the varied interests of this region, as well as our nation.

While the recommendations made by the Navigation Study are of global importance, let me begin my remarks with my personal experience shipping corn and soybeans by barge to market. Having grown up on a farm in Southeast Missouri just eight miles from the Mississippi River, I understand the importance of navigation. As long as I can remember, my family shipped our harvest of corn and soybeans to market by barge. Just this past weekend, I planted our soybean crop, which will be shipped on the Mississippi River after its harvest this fall.

Unlike much of the discussion surrounding the navigation improvements over the past decade, my family's decision to ship our harvest on the river has not been caught up in a political debate. Like most family farms on both sides of the River, the pennies, nickels and dimes we save per bushel shipping on the river make the difference between ending up in the red or in the black. Quite literally, the savings in transportation costs achieved by barge transportation helped pay for the food on our table, the clothes on our backs, and my college tuition.

My family's experience is not unique; in fact, I imagine that many of you in the room can tell a similar story. What makes the consideration of lock modernization so important is that it will decide the future of not one family farm, but the future of thousands of producers around the region.

With untold of acres of Brazilian rainforest being converted to fertile cropland every year, some industry insiders are forecasting that the United States will finish second in gross production of soybeans as soon as next year. These rapid advances in productivity indicate that one of the few advantages remaining to American corn and soybean farmers is our superior system of waterway infrastructure.

With one in three rows of American crops headed for foreign markets, the importance of maintaining our edge in transportation becomes apparent—Missouri ships 42 million bushels of its 170 million bushel yearly soybean crop to Asia alone. Noting its geographic location, Missouri's ability to move our harvest to overseas markets is almost completely dependant on the continued viability of navigation on the Mississippi River.

Because we must compete in overseas markets to survive, Midwestern farmers have bet the future of their farms on the crumbling concrete and well-worn miter gates of the Upper Mississippi and Illinois Rivers locks and dams. Unlike most sound risk management strategies, there is little opportunity to hedge our bets or insure our losses. Heaven forbid, should a lock fail for whatever reason, agribusinesses from Minnesota to Missouri to Mississippi will all be feeling the pinch.

Let me be clear—the losses we would face by failing to invest in our river infrastructure would not just accrue to the agricultural sectors of our economy. Without economically-viable river navigation, we would harm our environment and jeopardize the condition and safety of our nation's roads and highways.

As many of you know, a single 15 barge tow takes 870 semi trucks off of our roads, and reduces emissions by at least 35% over truck traffic. Moreover, the U.S. Department of Transportation (DOT) indicates that a gallon of diesel fuel in a towboat will push a ton of freight nine times farther than in a truck. I make this point not as a slight to my friends in the trucking industry, but as a means to demonstrate the consequences of a river shutdown.

With this in mind, consider the impact of even the most routine delay to barge traffic on the river. Last August, because of routine maintenance on Lock and Dam 27, tows were forced to squeeze through an auxiliary lock. As a result of the delay, 10 to 15 barge tows were tied up along almost the entire length of the Chain of Rocks canal. If these barges were taken off the river entirely, it would likely have resulted nearly 13,000 extra trucks passing through St. Louis that same day. Noting the condition of I-70 in Missouri, I think we all know that this alternative is simply not acceptable.

The status quo is not a sustainable option. These minor delays will only grow more frequent as our infrastructure grows older. Moreover, every day that goes by, the risk of a serious failure looms larger, our demand for fossil fuels and clean air grow larger, and our foreign competitors become stronger.

We as a nation must decide—and soon—if we want to be serious competitors in the global agricultural market. If so, we will need to extend our locks and dams to 1200 feet on the Mississippi and Illinois Rivers as recommended by the Corps' Preferred Alternative. If we fall prey to the arguments of the last decade and continue to delay, this decision will most certainly be made for us.

The time for action is now. As such, I plan on introducing legislation after the Fourth of July District Work Period that would provide Congressional authorization for the Corps' recommended transportation and ecosystem improvements. Closely mirroring S. 2470, legislation introduced in the U.S. Senate by my friend, colleague and constituent, U.S. Senator Kit Bond (R-MO), this bill would move the Navigation Study out of the realm of press release politics and highly-charged bickering and into your capable hands for deliberation and meaningful action.

With your panel's jurisdiction over further consideration of a new Water Resources Development Act (WRDA), I ask that you carefully consider the merits of this bill following its introduction. While linked by geography and by need, infrastructure improvements and ecosystem rehabilitation are both uniquely justified. Accordingly, I ask that your subcommittee balance the independent merits of both pieces with the collective need of the entire Upper River Basin for substantial investment in its extraordinary water resources.

Thank you again, Chairman Duncan and Ranking Member Costello, for your hard work and for the opportunity to offer this statement for the record.

STATEMENT OF

JOHN E. JAMIAN
DEPUTY MARITIME ADMINISTRATOR
U.S. DEPARTMENT OF TRANSPORTATION

ON THE

UPPER MISSISSIPPI AND ILLINOIS RIVERS-
RECOMMENDATIONS FOR
NAVIGATION IMPROVEMENTS AND ECOSYSTEM RESTORATION

BEFORE THE

TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
U.S. HOUSE OF REPRESENTATIVES

JUNE 24, 2004

Chairman Duncan, Congressman Costello and Members of the Subcommittee, thank you for the opportunity to appear before you today. Our coastal ports and network of inland waterways play an important role in our nation's transportation infrastructure and our economy. Annually, the U.S. marine transportation system:

- Moves more than 2 billion tons of domestic and international freight;
- Imports 3.3 billion barrels of oil to meet U.S. energy demands;
- Transports 134 million passengers by ferry;
- Serves 78 million Americans engaged in recreational boating; and
- Hosts more than 5 million cruise ship passengers

Within the United States, the inland waterways provide a means for moving major bulk commodities, such as coal (176 million tons per year), oil and petroleum products (152 million tons per year), and grain and farm products (89 million tons per year). Inland waterways transportation supports State, local government, and private sector economic development and job-creation efforts. Waterborne cargo contributes more than $742 billion to the U.S. gross domestic product and creates employment for more than 13 million citizens. Domestic waterborne shipping in the United States moves 14% of the national cargo tonnage, and provides $300 million and $55 million in federal and state tax revenue, respectively, on an annual basis. The potential efficiencies of the inland waterway systems for national transportation problem solving can be significant. For

example, a single 1,500 ton barge, the kind typically used on inland waterways, can carry the equivalent of 15 jumbo rail hoppers or 58 large trucks of bulk cargo. Waterborne transportation is the least expensive way for shippers to transport goods between two points on the river. On a per-container basis, vessels are less polluting than other modes, and have the fewest accidental spills or collisions of all forms of transportation. In fact, the safety record of inland water transportation is unmatched by any other mode.

The Nation's freight transportation system faces significant bottlenecks. DOT is working to develop a fully integrated national transportation system. To achieve this objective, we are working with other Federal agencies, as appropriate, to solve national challenges to waterborne transportation.

The Army Corps of Engineers (Corps) has been studying the need for inland waterway infrastructure modernization on the Upper Mississippi River and Illinois Waterway. In the spring of 2004, the Corps released a draft Upper Mississippi River-Illinois Waterway System Navigation Feasibility Study and Programmatic Environmental Impact Statement report (Study). DOT would like to commend the Corps for its interagency approach to the study process, which involved participation by DOT (through the Maritime Administration), the Department of Agriculture, Fish and Wildlife Service and EPA at the Working Group and Principal Group levels. The process allowed the interested agencies to address the issues in a collaborative and problem solving manner. In an effort to educate everyone on some of the more complex issues, the Corps brought in industry experts to discuss aspects of the study. The Corps also included the agency representatives in outreach meetings.

In September 2003, DOT's Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, prepared an Upper Mississippi River and Illinois Waterways: Non-Structural Measures Cost Benefit Study (Volpe Study) at the request of the Corps. The Volpe Study supported the Corps' study of navigation in the Upper Mississippi River and Illinois Waterway, and addressed the need to examine the potential for "non-structural measures" to improve efficiency in those waterways. The Volpe Study concluded that excess lockage time fees would encourage operators to improve their "maneuver times." However, the Volpe Study also concluded that the costs of installation of winches to speed the lockage process and avoid the excess lockage fee was not justified by the time savings gained.

Additionally, the Volpe Study concluded that scheduling systems, including "tradable permits," whose aim is to impose more predictability on the system, and which have been suggested by some parties, were impractical for this waterway and would alter the essentially responsive and flexible nature of the service currently provided to shippers. The Volpe Study states that reconfiguring cargo storage and terminal infrastructure below St. Louis might address shipper concerns while enhancing the efficiency of barge movements. However, as the report notes, this approach represents a fundamental change in river operations and is outside the scope of non-structural measures.

The Volpe Study found that an appointment system may have potential, especially if combined with an excess lockage fee, which was determined not cost effective. Also, with regard to lockage fees, the study suggests delays could be reduced through other non-structural measures such as training. After a review of all data, the Corps has recommended the use of small scale structural and non-structural measures as an immediate step to reduce delays.

In conclusion, the contributions of our coastal ports and inland waterways to the Nation's intermodal transportation system are significant and deserve attention. DOT is committed to working with others, using a coordinated, integrated approach to meet our Nation's transportation needs.

Thank you for the opportunity to testify. I would be pleased to answer any questions you may have at this time.

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COMPLETE STATEMENT

OF

MAJOR GENERAL CARL STROCK
U.S. ARMY CORPS OF ENGINEERS, DIRECTOR OF CIVIL WORKS

BEFORE THE
UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON TRANSPORTATION & INFRASTRUCTURE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT

ON

UPPER MISSISSIPPI RIVER ILLINOIS WATERWAY NAVIGATION FEASIBILITY STUDY

Introduction

Mr. Chairman, Committee members, and distinguished guests, I am pleased to testify before you on the U.S. Army Corps of Engineers (Corps) Upper Mississippi River Illinois Waterway (UMR-IWW) Navigation Feasibility Study.

In the Water Resources Development Act of 1986, Congress recognized the Upper Mississippi River System as a nationally significant ecosystem and a nationally significant commercial navigation system. The navigation system within the study area carries over 100 million tons of commodities including about 60 percent of the corn exports of the United States and about 45 percent of the soybean exports. The system contains almost 285,000 acres of National Wildlife and Fish Refuge and provides food and habitat for at least 485 species of birds, mammals, amphibians, reptiles and fish including 10 Federal endangered or threatened species and 100 state listed species. The study's over-arching goal has been to assure the long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System.

My comments will focus on the characteristics of the process, status of the feasibility study and a draft plan that the Corps of Engineers has identified in its draft Integrated

Feasibility Report and Programmatic Environmental Impact Statement dated 29 April 2004.

Process

The UMR-IWW navigation feasibility study has been an extended and challenging effort reflecting the size of the study area and the complexity of the issues being addressed. The study area includes approximately 1,200 miles of navigable waterway within portions of the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin. Among the complex issues the study faced were the uncertainties making future projections of river traffic, the difficulty of modeling demand for water transportation in grain and other commodity markets, the challenges of restoring a large river ecosystem while maintaining the navigation system and the need to respond to the concerns of other Federal agencies, the five states, and numerous environmental and economic interest groups.

The Corps has taken steps to ensure that the study is being conducted with openness and collaboration, and has also provided for an independent review of the Corps proposal and final report.

Collaboration and Partnership

An extraordinary level of openness and collaboration has marked the UMR-IWW navigation study. During the course of the study there have been 7 different rounds of public meetings. This totals 54 separate meetings attended by over 5,000 people including a round of 8 public meetings that were concluded this month to provide an opportunity for public comment on the draft feasibility report and EIS. Twenty-four study newsletters have been published with a distribution of nearly 10,000. Study efforts have involved much more than coordination and information exchange. Regional teams of Federal and state agencies and non-governmental organizations were established to comment on economic and environmental studies and evaluations. These teams have had more than 70 meetings. A Governors' Liaison Committee has provided state input and guidance and a regional group of Federal agencies has provided the perspective of the Federal study partners. At the Washington level, a Federal Principals Group consisting of representatives of the Corps; U.S. Department of Agriculture, Agriculture Marketing Service; U.S. Fish and Wildlife Service; U.S. Department of Transportation, Maritime Administration; and U.S. Environmental Protection Agency has advised the Corps and provided for additional interagency coordination.

Navigation and Environmental Objectives

The feasibility study was restructured in 2001 to address not only the navigation efficiency of the UMR-IWW but also to address the ongoing cumulative effects of navigation and the ecosystem restoration needs of the system. The study goal is to develop a navigation and aquatic ecosystem restoration plan that will assure an economically efficient and environmentally sustainable navigation system. Objectives

have been identified for both economic efficiency and aquatic ecosystem restoration and alternative plans formulated to address both sets of objectives.

Recognition of Uncertainty

There is great uncertainty in projecting future economic conditions. Our economic evaluation procedures generally require that major investments be evaluated over a 50-year period. The Corps recognizes that accurate projections of river traffic over an even shorter planning horizon are not possible. It is almost a certainty that looking at past trends will not give us a complete picture of the future, and that events that we do not currently anticipate will drive future conditions. In response to this uncertainty, five traffic scenarios have been developed for the Upper Mississippi River and Illinois Waterway. For agricultural products these five scenarios were formulated by changing key variables for the identified scenario drivers of world trade, crop area, crop yield and consumption. For other commodities, the existing forecast was updated to produce a single new traffic forecast.

A second source of uncertainty is the response of waterway traffic to any rise in prices caused by delays. Our current economic models do not capture the complexities of the domestic and international market conditions that drive the willingness to pay for river transportation. This is particularly true for exported corn and soybeans, which are the major commodities on this part of the inland waterways system. Recognizing that our existing economic models have limitations, we have used two different economic models to produce three different assumptions on the waterway transportation demand response to any increase in costs.

The Corps is seeking solutions that are justified over a wide range of traffic conditions and assumptions regarding demand elasticity. The Corps has proposed that such solutions be adaptively implemented in phases, if traffic conditions are such that the investments are economically justified.

Adaptive Implementation and Management

A plan for navigation efficiency on the UMR-IWW may include a combination of small-scale structural and non-structural measures as well as major structural improvements consisting of new locks and lock replacements. Small-scale measures and non-structural measures can be implemented inexpensively within a relatively short timeframe, while major structural measures are costly and take more time to implement.

One approach would be to pursue the early implementation of small scale, non-structural and structural measures, and allow time for the effectiveness of these non-structural measures to be evaluated. Meanwhile, traffic delays, domestic and global grain markets, and emerging trends would be monitored. Development of new economic models would continue under the Corps research program. Information and analysis from this monitoring and research could be made available to decision makers before proceeding further with major structural measures.

It is also difficult to predict the response of natural systems to ecosystem restoration measures. Furthermore, restoration of the ecological resources of the UMR-IWW will be a long-term undertaking. The initial activities therefore should include measures that will provide additional knowledge required to guide future investments. Management measures will be designed to test key hypotheses about the structure and function of the ecosystem. Future measures could then be adapted based on the knowledge gained in the initial implementation.

Independent Review

In response to a request by the Department of the Army, the National Research Council (NRC) conducted a review of the feasibility study concentrating on a review of the economic analysis, but also considered national water resources planning guidance, environmental impacts, and the costs of navigation improvements. The February 2001 NRC report contained a number of recommendations. The Corps adopted several of these recommendations in restructuring the navigation study and formulating the Corps research program. These included giving equal consideration to fish and wildlife resources, considering the ongoing effects of the existing Nine Foot Channel Project in formulating plans for ecosystem restoration, and initiating research on improved economic models for use in inland navigation studies. We have also contracted with the NRC to provide an independent review of the restructured feasibility study. A second NRC panel issued a preliminary report on the restructured feasibility study. This panel will issue a second, more comprehensive, report based on a review of the draft feasibility report and EIS, and a final report following the issuance of the Chief of Engineers Report. In addition to the NRC review, we have solicited the advice of outside experts in formulating the ecosystem restoration plans and adaptive management program, in formulating and reviewing the traffic scenarios, and in evaluating non-structural alternatives.

Status

On April 29, 2004, we completed a draft feasibility report and programmatic Environmental Impact Statement (EIS) that is currently undergoing a public review. Last week we completed a series of eight public meetings to solicit input on the draft report and EIS. The public review period will conclude at the end of July. The input from the public review and the NRC independent review will be considered in preparing the final report. It is our intention to ascertain the degree to which non-Federal sponsors will participate in cost-shared elements of the Plan. The final report will undergo a final public review and a review by the states and Federal Agencies.

The Chief of Engineers Report will be submitted to the Assistant Secretary of the Army (Civil Works) for review and determination of compatibility with the program of the President before transmittal to Congress. The draft feasibility report and EIS contain a preliminary proposal that needs to be understood in the context of the current stage of the study process. This proposal should be viewed as preliminary, pending the input from

agency, public, and independent review. It does not necessarily represent the views of the Administration, and will go through a review by the OMB under Executive Order No. 12322. We look forward to working with the Administration and Congress as this study moves forward.

This concludes my statement. Thank you again for allowing me to testify before you today and I would be happy to answer any of your questions.

TESTIMONY OF DR. BENJAMIN N. TUGGLE, CHIEF, DIVISION OF HABITAT AND RESOURCE CONSERVATION, U.S. FISH AND WILDLIFE SERIVCE, BEFORE THE HOUSE TRANSPORTATION AND INFRATSTRUCTURE SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT REGARDING THE UPPER MISSISSIPPI RIVER – ILLINOIS WATERWAY SYSTEM NAVIGATION FEASIBILITY STUDY

June 24, 2004

Mr. Chairman and members of the Subcommitte, I am Dr. Benjamin Tuggle, Chief of the Division of Habitat and Resource Conservation in the U.S. Fish and Wildlife Service (Service) and have been the Department of Interior representative on the Principals Task Force for the Upper Mississippi River – Illinois Waterway System (UPR – IWW) Navigation Feasibility Study. I am pleased to appear before you today to discuss the Service's continuing effort to work with the Army Corps of Engineers (Corps) and other stakeholders to develop a proposal that includes measures to conserve and enhance the fish and wildlife resources of the region.

The Upper Mississippi River System (UMRS) is a globally significant ecosystem. There is a strong federal interest in this because of the major importance of the UMRS as an interstate, international flyway for migratory birds; its importance for federally endangered species; the interstate nature of fish and wildlife management in the system; and the large acreage of public lands (425,000 acres) including nine national wildlife refuges with 285,000 acres.

Since the early 1990s, the Service has worked with the Corps on the UPR-IWW Study. When this study was initiated, the sole purpose was to investigate navigation improvements on the Upper Mississippi River and Illinois Waterway. The Service's responsibility, under the Fish and Wildlife Coordination Act, was to assess impacts of proposed actions on the environment and recommend alternatives to minimize or avoid any adverse ecological effects. However, the Service (as well as state natural resource agencies) also advocated that the Corps needed to assess and mitigate the ongoing and cumulative ecological effects associated with operating and maintaining the existing Nine-Foot Channel navigation project. Although the existing Upper Mississippi River System Environmental Management Program (EMP) has been successful in restoring habitat at specific locations, a far greater level of

effort would be needed to reverse the system-wide long-term decline in fish and wildlife habitats.

In early 2001 the Corps suspended work on the original feasibility study to consider possible changes in the study purpose. A group of federal agency representatives was convened to assist the Corps' consideration of a new study direction. This Federal Principals Task Force was comprised of the Departments of Interior, Agriculture, Transportation, and the Environmental Protection Agency. The role of the Service in the restructuring of the study was to provide expert advice to the Corps on strategies and measures designed to enhance the ecological sustainability of the UMRS and to identify restoration opportunities.

A key recommendation of the Principals Task Force was to develop a comprehensive mitigation plan to address the effects of the operation and maintenance of the navigation system on the environment, as identified and quantified in the cumulative effects analysis. The restructured study reflects this recommendation.

The study resumed on two parallel tracks: one, to reassess the economic justification for navigation improvement measures, and a second to develop a comprehensive plan for restoring fish and wildlife resources affected by the existing navigation project. The restructured study added habitat restoration as an objective. Since the restructuring occurred, the Service has collaborated with the Corps and other river management agencies to develop alternatives designed to reverse the decline in habitat quality and achieve environmental sustainability throughout the UMR ecosystem. Many of the Service and State recommendations were included in the proposal that the Corps has presented in its draft feasibility report.

As the Corps has testified, ecosystem restoration is a long-term (fifty years and beyond) obligation. To address the ongoing and cumulative effects of the Nine-Foot Channel Navigation Project would require a long-term effort. The Service believes that such effort should employ an adaptive management strategy. Initially, such a program would emphasize the identification of needed habitat management measures through a combination of experimental project design and performance evaluation. We look forward to working with

the Corps and other partners in developing the management and institutional framework necessary for such a program.

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

Statement of
A.J. Yates
Administrator
Agricultural Marketing Service
U.S. Department of Agriculture

Before the

House Committee on Transportation and Infrastructure
Subcommittee on Water Resources and Environment
June 24, 2004

Mr. Chairman, good morning and thank you for the invitation to appear before this subcommittee today.

The U.S. Department of Agriculture (USDA) shares U.S. producers' and agricultural shippers' interests in ensuring that our Nation has an efficient transportation system. Our competitive edge in global markets depends on our ability to efficiently move our products. This is true today more than ever before, particularly as our producers strive to compete with producers in countries that are investing in their transportation infrastructure.

Our Nation's inland waterway system often has been referred to as our first interstate highway system, and for good reason. Transportation by water has been shown to be low-cost to shippers, environmentally friendly, and highly effective at moving vast quantities of bulk commodities to ports where they are destined for export. Each 15-barge tow saves the highways from 870 semi-trucks, which would stretch for 11 and a half miles, bumper to bumper. Each 15-barge tow carries nearly 800,000 bushels of grain –equivalent to the production from nearly 6,000 acres of corn. The majority of the United States' grains for export, which are produced in the interior states of the Nation, are moved by rail and truck to the major arterial waterways which then feed into the Mississippi River, comprising a vast waterway system capable of moving millions of tons of grain.

A relative handful of States in our Nation's heartland – including Minnesota and Wisconsin, Nebraska and Iowa, Indiana, Illinois, and Missouri – produce the majority of the U.S. corn crop. These States out-produce Argentina's corn crop ten times over. In fact, these States produce more corn than Argentina, Brazil, and China combined.

Last year our agricultural production broke records. Around the world other countries were not as fortunate, and they turned to U.S. supplies to meet their needs. China entered the world market and will purchase a record high level of agricultural products this year from the United States. This year, U.S. agricultural exports are forecast to reach a record high $61.5 billion, due in no small part to heavy demand for corn, wheat, and soybeans from other countries.

For the 2004/05 crop year, USDA is again forecasting a record corn crop and strong export demand. Soybean production is also projected to reach record levels in the United States. However, increased oilseed production in South America will mean strong competition in global markets. While an efficient transportation network is only one factor in determining our competitive position, it does affect the overall price at which shippers can offer their goods.

The dominant grain producing regions in the United States include the Corn Belt and the Northern Plains States. These States are located 1,000 miles and more from the ports that serve the Nation's export activity. Our competitors in South America, however, have a geographic advantage that we do not. The dominant grain producing regions in Argentina and Brazil are located within 200 miles of their ports – in some cases as close as 50 to 100 miles. And, even more significantly, as they have begun to make investments in their transportation infrastructure to compete in world markets, the U.S. advantage in world grain markets has begun to erode.

USDA recognizes that improvements to the inland waterway system are complicated by a number of competing interests and purposes that the river system serves. Certainly navigation and environmental considerations are at the forefront of those interests. While USDA is particularly mindful of the transportation needs of this Nation's agricultural producers and shippers, we believe that environmental interests can be accommodated as well.

Some who oppose navigation improvements to the Nation's inland waterway system may believe that agriculture can rely on railroads to do the job. It is true that railroads can and do provide alternative transportation for the Nation's agricultural exports. But railroads cannot do the job alone. Consider the past crop year. Railroads struggled to keep up with traffic demands last fall and winter as the U.S. corn crop broke all historical records and the wheat crop was also considerably larger than the previous year. Wait times for rail cars often exceeded 30 days at times – imagine waiting 30 days for your product to be picked up or delivered in this world of "just-in-time" inventory management.

Like many other parts of the Nation's infrastructure, railroads are also stretched to capacity. The major Class I railroads all expect increased demands for service this year, as the economic recovery that is underway continues to gather steam. The railroads are investing in more cars, more locomotives, and more personnel – investments that will be important over the long run. But railroads cannot do it all and they cannot do it alone. All modes of transportation play an important role in moving products produced in the United States to domestic consumers and global markets. No single mode of transportation can serve all of the demands for freight movement.

Moreover, multiple modes of transportation help keep rates competitive by offering alternatives in the transportation services market. This is particularly true for barge and rail transport. The availability of barge transportation as a viable alternative to

rail plays an important role in keeping rail rates competitive. The reverse is true as well. It is a simple fact that fewer transportation alternatives mean higher transportation costs.

USDA's research shows that nearly half the cost of U.S. grain at its final destination in Asian markets is accounted for by the cost of transportation from the farm gate to the final consumer. Therefore, the availability and cost of transportation affects the ability of our farmers to gain and hold foreign markets. From the shipper's perspective, barge transportation is the cheapest portion of the freight bill for grain moving from Minneapolis, Minnesota, to Gulf ports for shipping to Japan. Barge rates are three times cheaper than rail; rail rates are three times cheaper than truck.

According to the American Waterways Operators Association, 25,000 to 60,000 jobs are tied just to barge transportation on the Nation's inland waterways. Each $1 billion in agricultural exports generates 15,000 U.S. jobs.

Investing wisely for our future is in the national interest. We advocate sound investments in the Nation's transportation infrastructure to ensure what we have enjoyed in the past – our position as a global leader in agricultural production and trade.

USDA recognizes that the competing interests in our Nation's inland waterways have different and valid perspectives. However, USDA stands strongly behind the importance of this country's agricultural commerce, both for the role it plays in our larger economy and for its importance to producers, their families, and our rural communities.

Thank you, Mr. Chairman.

Testimony of Fred Yoder
Chairman
National Corn Growers Association
House Subcommittee on Water Resources and Environment
Washington, D.C.
June 24, 2004

Good morning. Chairman Duncan and Ranking Member Costello, thank you for the opportunity to testify on the Corps of Engineers Draft Integrated Feasibility Report and Programmatic Environmental Impact Statement for the Upper Mississippi River-Illinois Waterway System Navigation Feasibility Study.

My name is Fred Yoder. I am Chairman of the Board of the National Corn Growers Association (NCGA). I am from Plain City, Ohio, where I grow corn, soybeans and wheat. NCGA was founded in 1957 and represents more than 33,000 dues-paying members from 48 states. NCGA also represents the interests of the more than 300,000 farmers who contribute to corn checkoff programs in 19 states.

Corn Growers and the Corn Industry
NCGA's mission is to create and increase opportunities for corn growers in a changing world and to enhance corn's profitability and use. Corn is one the world's most versatile crops. For centuries, it has been a staple of everyday life, serving as a source of food, energy and currency. From the early maize crops first cultivated by the Mayans and Incas to today's advanced hybrids that resist pests and chemicals, corn is the heart of agriculture.

Agriculture is the world's largest industry. Around the world, more people are involved in agriculture than all other occupations combined. While there are less than two million Americans actively involved in production agriculture, one out of every six jobs is tied to the industry. Agriculture supports every aspect of our economy.

Today, advances in pest-resistant seeds, highly mechanized equipment and modern grain storage and transportation systems allow U.S. farmers to produce higher quality crops on less ground than ever before. According to the U.S. Department of Agriculture (USDA), in 1950 there were more than 5.3 million farmers utilizing 1.1 billion acres. Today, less than two million farmers operate on 950 million acres.

Since the 1950s, crop yields have increased by more than 55 percent. Meanwhile, the percentage of income Americans spend on food has declined. In 2003, corn growers planted more than 78 million acres of corn, producing about 10 billion bushels of grain. Corn is grown in all 50 states, but 88 percent of production is centered in the Midwest.

Without knowing it, the average American consumer uses products derived from corn many times a day. You may fill your car up with ethanol-blended fuel. That soda at lunch was likely sweetened with a corn sweetener. Maybe you have a pillow or

comforter made from corn fiber. And the pot roast for dinner was most likely corn-fed beef.

For many, corn is just a common consumer product – a cornflake, chip or corn-on-the-cob. In reality, human consumption is a small percentage of overall corn use.

In the United States, 57 percent of the corn crop is fed to animals, helping livestock producers deliver affordable, high-quality meat products to consumers. The livestock industry is the corn grower's leading customer. In 2003, beef cattle were fed more than 1.4 billion bushels of corn, while hogs consumed 1.1 billion bushels and poultry another 1.3 billion bushels.

Producers around the world continue to explore value-added opportunities for corn. One of the most successful efforts has been the growth of the ethanol market. Eleven percent of U.S. corn production goes into ethanol, while another 19 percent or 1.9 billion bushels is exported. The remainder is used for food, seed and industrial uses.

Thousands of products are derived from corn. The emerging bioproducts industry creates new uses for corn and its byproducts. Solvents, cleaners, deicers and plastics are just a handful of the hundreds of renewable, corn-based products we use every day.

Corn refining also is a prime example of value-added agriculture. Refining separates corn into its various components – starch, oil, protein and fiber – and converts them into higher-value products. Each year, more than 1.4 billion bushels of corn are refined into a wide variety of food, industrial and feed products.

Why the Inland Waterways are Important to Farmers

Lock modernization is a critical priority for NCGA this year. NCGA has long-supported upgrading the locks on the Upper Mississippi River System. It is our national transportation system that has allowed farmers to be competitive in the world market and to prosper. Corn growers support robust investments in rail, highway and inland waterway infrastructure. Unfortunately, investment in the inland waterway system has not kept pace with needs and is slowly being starved.

U.S. farmers need efficient transportation networks. Farmers move their crops and receive their inputs by barge, rail and truck. The competition among these modes of transportation helps farmers receive the best price for their crops, meet their customers' demand for timely delivery of products and successfully compete with foreign producers. Without the competition that comes from access to efficient, alternative transportation methods, farmers can pay up to 30 percent more to transport their crops.

Efficient waterway transportation affects domestic grain prices. Even though not all corn growers ship to the Mississippi River, all growers are impacted by it. Every day, the price of grain a farmer receives at his home market is based on the price of grain that moves on the Mississippi River to the export markets. If Congress does not reinvest in

the inland waterway system, all farmers will suffer as transportation costs will increase, export opportunities will decline and prices at the home market will fall.

Efficient waterway transportation systems increase U.S. exports. Every year, more than one billion bushels of grain (about 60 percent of all grain exports) move to export markets via the Mississippi River. The American farmer's international competitiveness has always hinged on the ability to move crops to market. The lower the cost of transportation; the lower the cost of U.S. grain on the world market; thus, the more grain the U.S. is able to sell.

Market Outlook

About one out of every five rows of corn in the United States is exported, and exports of value-added corn and co-products add to the importance of foreign markets for U.S. corn growers. In 2003, U.S. corn exports totaled 51 million metric tons with a value of $4.7 billion. This represents approximately 20 percent of total domestic production, with the U.S. accounting for nearly 65 percent of worldwide production last year. Our two closest competitors in the international marketplace are Argentina and China with 12 and 10 percent of world production respectively.

I am pleased to report USDA recently estimated U.S. corn exports would increase in the 2003/2004 marketing year to 2.05 million bushels (52.08 million metric tons). U.S. corn exports are up 50 million bushels, largely because of less competition from China. Although global coarse grain use is up 8 million tons, global coarse grain imports are down just over one million tons. U.S. and Argentine corn exports are expected to expand while those of China and Brazil decline.

Across the country, corn farmers are enjoying the benefits of a commodity boom after several years of just making it. These ups and downs are common in agriculture. The critics who claim the Corps's future traffic forecasts are unreliable and unrealistic actually are the ones who have trouble with reality. The Corps, with the help of USDA did an excellent job of accounting for the uncertainty inherent in forecasting future agricultural and related transportation traffic trends.

Agriculture is notorious for its uncertainty. Crops and farm income are dependent like no other industry on weather, politics and market trends beyond our control or ability to estimate. The forecasts used in the preferred alternative are reliable and based on tried and true methods. Throughout the preferred alternative there is careful analysis of the possible scenarios that consistent with USDA's baseline projections. USDA's forecasts are used by farmers and the agriculture industry around the world.

Evans Study – Economic Impact of Increased Congestion

In 2002, NCGA conducted a study titled the Determination of the Economic Impact of Increased Congestion on the Upper Mississippi River and Illinois River Waterway. It was conducted by Dr. Michael K. Evans of Evans, Carroll & Associates and Northwestern University.

Dr. Evans constructed an econometric model of world corn imports, exports and production and used it to calculate the increase in the export prices of corn at the Gulf ports, the reduction in corn prices received by farmers and the decline in U.S. corn exports and production for a given increase in river barge freight rates for agricultural commodities. Similar calculations were made for soybeans.

The model was applied for four different sets of assumptions. First, Dr. Evans used the Corps of Engineers original traffic forecasts of corn and soybean tonnage for 2020. Under this assumption, freight rates would rise approximately 65 percent by 2020. The model also used revised forecasts of corn and soybean tonnage, using different elasticity figures.

Under these assumptions, freight rates would rise an estimated 41.7 percent and 40.6 percent respectively. The net impact on employment and tax receipts would be substantially lower. The fourth set of assumptions were based on older Corps of Engineers forecasts of tonnage and an earlier estimate of a 75 percent increase in water freight rates by 2020. The results provided today are based on the standard case of a 65 percent increase in agricultural freight rates.

The major finding of the study was that increased congestion would increase river transportation costs by 17 cents per bushel. Export prices would increase by 13 cents per bushel; farm gate earnings would decrease 3.6 cents per bushel and transportation and distribution facility margins would decrease by 4 cents per bushel.

Farm income would fall $562 million; $246 million would come from reduced exports and $316 million from lower prices and decreased domestic demand. Without improvements, the nation would lose 30,000 jobs; 14,550 in corn-growing states and 5,625 in nonfarm states. The remainder, 9,375jobs, would be lost due to the impact on the federal budget. Evans estimates that increased congestion would increase the federal deficit by $1.5 billion.

(See attached handout.)

Preferred Alternative

NCGA would like to commend the U.S. Army Corps of Engineers for its Draft Integrated Feasibility Report and Programmatic Environmental Impact Statement for the Upper Mississippi River-Illinois Waterway System Navigation Feasibility Study, otherwise known as the preferred alternative.

NCGA believes the preferred alternative will meet the needs of corn growers across the United States for an efficient and modern national transportation system, fostering competition between transportation modes and increasing access to important export markets. The preferred alternative also meets the economic needs of the Midwest and the environmental needs of the Mississippi River system. It is a balanced, reasonable approach to a national transportation problem that will address the challenges of today

while ensuring the United States retains a competitive advantage in the international marketplace.

NCGA supports the Corps's phased-in approach to address congestion on the navigation system where it exists today. By focusing on the next 15 years, the Corps will be able to more easily manage the various components of the preferred alternative from preconstruction engineering and design, to construction, mitigation and restoration. In addition, by segmenting the phases of the plan, the Corps will be able to continually update its studies and methodologies to better understand the system and meet congressional directives and public expectations.

NCGA has a few concerns and suggestions. First, NCGA strongly encourages the Corps to keep management and funding for the navigation system separate from the ecosystem restoration component. The Corps should not recommend any funding scheme that directly ties restoration to navigation. The Corps has 70 years of experience with lock construction and navigation system management. Major ecosystem restoration is a relatively new function. While there are obvious linkages between the two, neither should be directly tied nor allowed to negatively impact the other.

Navigation should be managed so not to limit its future potential for growth. Projections for future demand in the world market illustrate the necessity of an efficient, reliable inland waterway transportation system. Expected global demand will be fueled by population growth, rising incomes, changes in dietary habits and growing energy needs. According to USDA, corn exports are forecast to grow 53 percent over the next decade. Total agricultural exports for FY 2004 are expected to be a record $61.5 billion, a $5.3 billion increase over last year.

NCGA generally supports the ecosystem restoration portion of the preferred alternative. Corn growers recognize that navigation has impacted the environment and support mitigation and restoration efforts where appropriate. However, this restoration program should be implemented in a thoughtful, carefully planned manner. As this is the first time the Corps will implement such a broad, system-wide restoration plan, it should continually evaluate its progress and the impact the restoration activities are having on the landscape and navigation. The Corps also should ensure resources are not wasted but are targeted towards projects of the highest value, providing the greatest public benefit.

One final concern is the concept of adaptive management. In theory, project management should adapt to changing conditions and needs. In practice, it could be a way around well-established rules and practices with the purpose of implementing top-down solutions. NCGA does not expect the Corps will use adaptive management in this manner. However, to ensure adaptive management is implemented as intended, NCGA encourages the Corps to continue to work closely with stakeholders and maintain its general policy and practice of openness.

Conclusion

An efficient transportation system is essential for the U.S. agriculture sector to remain competitive. International competition from countries such as Argentina and Brazil are lowering profit margins and increasing the importance of quick and efficient delivery of bulk commodities. The only major advantage our farmers have over competitors in Brazil is the inland waterway system. Without it, we will not remain a reliable supplier in the international marketplace.

More than 70 years ago, Congress had the foresight to invest in the Upper Mississippi River system. The results were spectacular, and the United States became the bread basket for the world. We implore you to show this same prescience so the agriculture sector can remain competitive in the future. Countless studies and years of investigation prove that the public investment is not only justified but needed. We cannot afford to wait any longer. If we fail to move forward, the world will look elsewhere for basic food commodities. That is something corn growers and farmers across the country cannot accept.

Thank you again for the opportunity to testify. I would be happy to respond to any questions.

Economic Impact of Congestion on the Upper Mississippi and Illinois Rivers

Congestion on the Mississippi River and the Illinois Waterway not only affects American farmers, but also consumers, workers and businesses. The Evans Study, done in March 2002, calculated the economic impact of increased congestion on the rivers, finding negative impacts in all cases.

River transportation costs increase 17 cents per bushel

* 13 cents per bushel export price increase
* 3.6 cents per bushel less in farm gate earning
* 4 cents per bushel in decreased margins to transportation and distribution facilities

$562 million lost in farm income

* $246 million lost from reduced exports
  - Corn exports decrease 68 million bushels
  - Soybean exports decrease 10 million bushels
* $316 million lost from lower prices and decreased domestic demand

30,000 jobs lost

* 14,550 jobs lost in corn-growing states
  - State, local tax receipts decreased by $185 million from 10,945 jobs lost
  - 3,605 jobs lost as result of reduced disposal income
* 5,625 jobs lost in nonfarm states
  - Increase in food prices = reduced disposal income, reduced employment
* 9,375 jobs lost from reduced federal budget surplus of $1.5 billion
  - Higher consumer prices and interest rates along with smaller budget surplus reduces GDP

Trade deficit widened by $245 million

$600 million lost to consumers

* 16 percent increase in rail rates, which are passed on to consumers

Additional $1.5 billion lost to federal budget

Source: Determination of the Economic Impact of Increased Congestion on the Upper Mississippi River-Illinois River Waterway. Dr. Michael Evans, Evans, Carroll and Associates; for the National Corn Growers Association, March 2002

For more information, contact Betsy Croker, National Corn Growers Association, 202-628-7001.

STATEMENT OF
THE AMERICAN FARM BUREAU FEDERATION
TO THE
WATER RESOURCES AND ENVIRONMENT SUBCOMMITTEE
OF THE
HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
REGARDING THE
UPPER MISSISSIPPI RIVER-ILLINOIS WATERWAY SYSTEM
NAVIGATION STUDY

June 24, 2004

The American Farm Bureau Federation, a general farm organization with over 5.5 million members, is pleased to offer this statement to the Water Resources and Environment Subcommittee regarding the Upper Mississippi- Illiniois River Navigation Study.

Our organization strongly supports navigation efficiency alternative 6, which has been incorporated into the Corps' preferred plan for the Upper Mississippi River and Illinois Waterway System. Of particular importance are the seven new 1,200-foot locks at 20-25, La Grange, and Peoria and five lock extensions at 14-18 included in the plan. These infrastructure improvements are desperately needed and should be approved immediately.

For years, Farm Bureau and others have been calling attention to the importance of the Mississippi River to agricultural producers' ability to compete in the global marketplace. Agriculture is one of the few sectors in which the United States still had a positive trade balance due to the tireless efforts of our nation's leaders to open new foreign markets. Almost 96 percent of the world's population resides outside of our borders. It is essential that we have a waterborne transportation system that can efficiently and reliably deliver our products to market.

Exports are critical to the agricultural economy. In 2002, over 25 percent of Missouri's annual marketings were exported, including soybeans and products valued at $472 million, feed grains and products valued at $245 million, and wheat and products valued at $134 million. Overall, Missouri exported $1.2 billion in agricultural products that year. Exports provide 20 to 30 percent of total farm income and support roughly 17,880 jobs both on the farm and off the farm in food processing, storage and transportation.

Over 60 percent of U.S. grain exports are transported via the Mississippi River, including 2.5 billion bushels of corn and soybeans. In 2002, the system carried 50 percent of the nation's corn exports and 40 percent of the nation's soybean exports. USDA expects corn exports to increase by 53 percent during the next decade. Agriculture and government work to open new export markets for American agriculture. These market opportunities will be wasted if we cannot effectively and efficiently deliver products and outperform our competitors.

The U.S. agriculture industry cannot continue to effectively compete internationally using a system that was built in the 1930s. Delays that are currently experienced due to undersized locks

increase transportation costs for farmers like me, shippers and consumers. As the locks continue to deteriorate, shut-downs and delays are going to become more frequent, which means we will face lower prices, decreased domestic demand and lost exports. Meanwhile, our competitors in Brazil, Argentina, China and other countries are investing in infrastructure with the goal of lowering transportation costs and increasing exports and their overall world market share.

Improving our navigation system by modernizing our locks and dams is not only positive for agriculture, but for the citizens of Missouri and our entire nation. Barge transportation helps reduce congestion on our highways, is environmentally friendly, and saves producers and consumers money by helping keep transportation rates competitive. These are just a few of the benefits. In addition, half of the cost of new locks will come from the Inland Waterways Trust Fund, to which consumers and shippers have contributed to through the waterway industry fuel tax.

While Farm Bureau recognizes the importance of ecosystem restoration, we believe all proposals should be subject to the same standards of review as navigation and infrastructure improvements. In addition, mitigation and restoration projects must not negatively impact navigation or landowners.

We have been blessed with an inland waterway system that is the envy of the world. We have an opportunity to enhance our ability to compete in overseas markets, which is good for farmers and the economy. We urge the Congress to authorize this project in the upcoming Water Resources Development Act Legislation.