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WATER RESOURCES DEVELOPMENT ACT OF 2000

HEARING

BEFORE THE

SUBCOMMITTEE ON
TRANSPORTATION AND INFRASTRUCTURE

OF THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

MAY 23, 2000

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WATER RESOURCES DEVELOPMENT ACT OF 2000

TUESDAY, MAY 23, 2000

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:10 a.m. in room 406, Senate Dirksen Building, Hon. George V. Voinovich (chairman of the subcommittee) presiding.

Present: Senators Voinovich, Lautenberg, Chafee, Thomas, Lieberman, and Baucus [ex officio].

OPENING STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE STATE OF OHIO

Senator VOINOVICH. Good morning. The hearing will please come to order.

Today we are going to consider the Administration's version of the Water Resource Development Act of 2000, WRDA 2000. While this is, in one sense, our initial hearing on the Water Resources Development Act, it is actually this committee's fourth hearing concerning aspects of WRDA 2000. The full committee has already held a field hearing in Florida and a hearing in this very room on the comprehensive Everglades restoration plan, which will be the cornerstone of this year's WRDA bill. In addition, the subcommittee held a hearing last week on the backlog of Corps of Engineers projects.

As many in this room are aware, Chairman Smith has set an ambitious schedule for putting together the WRDA bill with a goal of marking up legislation by June 27.

There are some who may question the need for a WRDA bill this year, since Congress passed a WRDA bill last year. In reality, last year's bill was actually unfinished business from 1998. If Congress is to get back on its 2-year cycle for passage of WRDA legislation, we need to act on a bill this year.

The 2-year cycle is important to avoid long delays between planning and the execution of projects and to meet commitments to State and local government partners who share the costs with the Federal Government.

While a 2-year authorization cycle is extremely important in maintaining efficient schedules for completions of important water resource projects, as we explored at our hearing on May 16th, efficient schedules also depend on adequate appropriations.

The appropriations for the Corps programs have not been adequate, and, as a result, there is a backlog of over 500 projects that will cost the Federal Government $38 billion to complete.

As we heard from General Van Winkle last week, they are worthy projects with positive benefit-to-cost ratios and capable non-Federal sponsors, so these are not wish projects, these are real projects. There are 500 of them, $39 billion worth that are sitting on the shelf.

The failure to provide adequate funding for these projects means that the project construction schedules are spread out over a longer period of time, resulting in increased construction costs and delays in achieving project benefits.

I recognize that budget allocations and Corps appropriations are beyond the purview of this committee, but I believe the backlog issue should impact the way we approach WRDA 2000 in three very important ways:

First, we need to control the mission creep of the Corps of Engineers. At the backlog hearing I held last week, I mentioned that even though I obtained a limited authority for environmental infrastructure in Ohio, I am not convinced that there is a Corps role in water and sewage plant construction. In fact, I would like to see it knocked out, period. That should be a State and local government responsibility, with some Federal assistance through the State revolving loan funds.

Another example is the brownfields remediation authority proposed by the Administration for the Corps. Brownfield remediation and redevelopment is a very important issue. It is a big problem in my State, and I am working to remove Federal impediments to State cleanups. If we get the EPA off our back and get the authority to go forward with it, there would be unbelievable brownfield cleanups by States with State money. But, having said that, I don't think that this is the mission of the Corps of Engineers.

What we need to do is recognize and address the large amount of unmet national needs within the traditional Corps mission areas—needs such as flood control, navigation, and emerging mission area of restoration of nationally significant environmental resources, like the Florida Everglades.

The second thing we need to do in WRDA 2000 is make sure that the projects we are authorizing meet the highest standard of engineering, economic, and environmental analysis. We must be sure that the projects and project modifications Congress authorizes make maximum net contributions to economic development and environmental quality. We can only assure that projects meet these high standards if projects have received adequate study and evaluation to establish project costs, benefits, and environmental impacts to an appropriate level of confidence. This means that a feasibility report must be completed before projects are authorized for construction.

Finally, we have to preserve the partnerships and cost-sharing principles of the Water Resources Development Act of 1986. WRDA 1986 established the principle that water resource projects should be accomplished in partnership with State and local governments and that this partnership should involve significant financial participation by the non-Federal sponsors.

My experience as mayor of Cleveland and Governor of Ohio convinced me that the requirement for local funding to match Federal dollars results in much better projects than where Federal funds are simply handed out. It doesn't matter if it is parks, housing, highways, or water resource projects, the requirement for local cost share provides a level of accountability that is essential to a quality project, and cost-sharing principles must not be weakened.

We are going to start today's hearing with the presentation of the Administration's WRDA proposal. We will follow that presentation for the panel of proponents for projects and programs that are either already contained in the Administration's bill or are scheduled to have feasibility reports completed this year in time for WRDA consideration.

I believe today's presentation will give the committee a good blueprint from which we will be able to formulate a Congressional WRDA bill this year.

[The prepared statement of Senator Voinovich follows:]

Senator VOINOVICH. Senator Baucus?

OPENING STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM THE STATE OF MONTANA

Senator BAUCUS. Thank you, Mr. Chairman.

First, I compliment you on the way you are conducting this hearing, particularly the way you and Chairman Smith are handling the WRDA bill. It is a comprehensive schedule, but it is one that is solid, and it is timely and very professional and I just congratulate you for your work on it.

I just have a couple of points. I would like my statement to be included in the record.

One, I compliment the Corps, and particularly Secretary Westphal, for all of your work, generally.

Second, I want to thank Senator Crapo for coming out to Montana, for holding a hearing on the Fort Peck Fish Hatchery on April 29th of this year. I won't go into great detail as to the importance of that project, but I can assure you that the folks in that part of my State are very, very appreciative of the efforts of this committee and the Corps with respect to that hatchery.

More generally, I think it is important to remind ourselves how important WRDA is, because it is essentially an infrastructure bill, and the better the infrastructure in our country, the more solid and sound the economy.

It is really the water equivalent of T–21. We passed a highway bill out of this committee a few years ago which helped highway infrastructure, and this is essentially the water T–21. It is the water infrastructure bill. I just think it is important that we all keep that in the back of our minds as we move forward. These are not just local projects for local areas; this is a national bill to improve the national infrastructure.

Finally, I very much compliment you and others that have worked so hard in the Everglades restoration bill. I support it. I think it is an extremely worthwhile project. Several of us—I know you have, too, Mr. Chairman, asked a couple of tough questions in previous hearings. Frankly, in my judgment—and I know that's the view of the Secretary—those tough questions just help the pro-

gram. It helps it by showing the tough questions can not only be asked, but can be answered. I compliment all of you for working so hard on that project.

Thank you, Mr. Chairman.

[The prepared statement of Senator Baucus follows:]

Senator VOINOVICH. Senator Lautenberg?

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thanks, Mr. Chairman.

My compliments, as well, to you for getting this hearing underway. The subject is so important, and as time passes I think it is fair to say we see the great need to take advantage of the skills and the resources that we have in the Army Corps and to try to use them as effectively as we can, and recognize that in this full-blown economy that we are experiencing, that we may need help in some areas just to maintain what we've got.

We've seen what can be, based on the buoyancy of the economy, and now we have to step up to the conditions that arise as a result of that.

Well, we're going to hear later on from Lillian Borrone of the Port Authority. She's going to testify today, and she's going to discuss the need to deepen the major channels in our port area to 50 feet. I hope the subcommittee is going to authorize this project, which just this month received a favorable report from the Corps of Engineers.

Senator Moynihan, my colleague on this committee, and I have a great interest in the future of our port, and I served as a commissioner of the Port Authority before coming here, so between us Senator Moynihan and I have lots of years of experience related to the port and its effect on the economy of our region.

The 50-foot project for the Port of New York and New Jersey is the largest project anticipated for our region in the history of the port, and it is well worth the investment.

The Port of New York and New Jersey is not just a local port, but it is the Nation's port. It is located at the center of the largest regional market in the country. It is the largest container port on the east coast, and the third-largest in the United States. It serves 34 percent of the population of this country. And last year exports exceeded $22 billion. That's second only to the Port of Long Beach, California. The Port of New York and New Jersey also provides about 165,000 local jobs.

So, Mr. Chairman, over the next several years, the Port Authority, that bi-State agency that I think was one of the more brilliant creations that has happened in terms of government, tries to—not always successfully, but tries to ameliorate problems that occur between the States and get on with the work that affects both our economies.

They project that there will be somewhere between 3.7 and 4.6 percent growth in the volume of cargo entering and leaving our port. This cargo depends very much on larger vessels. These vessels are capable of carrying over 6,000 containers and require a channel depth in excess of 46 feet. So, just in comparison, a ship carrying only 2,000 containers—we just said they are carrying over 6,000

now—is the equivalent of 1,000 rail cars, or 2,000 trucks. One of these ships, the ''Regina Emeris,'' recently entered our harbor only partially filled. I wish that everyone could see this picture. The red line is below the draft line. The red color is below the preferred draft level, because it is traveling and coming in about half full because the channel just was not deep enough to allow it access to our terminals. That's a problem we have to attend to.

I also want to briefly mention another issue in WRDA the chairman brought up that I hope the subcommittee is going to consider, and that is the issue of port sharing or port projects.

Mr. Chairman, as you know, the current cost for navigation projects greater than 45 feet is half, 50/50, half and half. The formula was established 14 years ago, before we were aware of the need to deepen our harbors to accommodate new generations of container ships, and it is time that we bring this cost-sharing into the 21st century and include a provision that revises the cost sharing to reflect a fairer distribution of costs.

Finally, I want to address the Administration's proposal to authorize the Corps to participate in brownfields redevelopment projects. I support efforts to increase the Federal Government's assistance with State and local brownfield projects, and that's the reference I was talking about, Mr. Chairman. The Corps is already participating in brownfields-like projects known as Minnich Park in Newark, New Jersey, and they are really helping. They have removed deteriorated piers and restored the waterfront, making it into an urban park as part of a larger flood control project along the river.

The project enjoys strong support from the city of Newark, and a lot of the communities just don't have the means to get into this without some assistance from the Federal Government, so I hope that we are going to be able to move on this, and I await the witnesses' testimony.

Senator VOINOVICH. Thank you, Senator.

Senator Chafee?

OPENING STATEMENT OF HON. LINCOLN CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Thank you, Mr. Chairman.

I am looking forward to the testimony, especially of Dr. Westphal and General Van Winkle and Mayor Malloy, who will testify this morning about the role of the Army Corps of Engineers in brownfields redevelopment.

I understand, Mr. Chairman, your concern for mission creep for the Corps; however, the undeniable economic, environmental, and social benefits of brownfields redevelopment do demand that we utilize all the tools at our disposal, and I do believe the Corps is an effective tool, and I look forward to working with members of this subcommittee and the Administration to ensure that the Corps continues to play a valuable role in the revitalization of our communities.

Thank you.

Senator VOINOVICH. Thank you.

Our first two witnesses this morning are Dr. Joseph Westphal, who is the Assistant Secretary of Army Civil Works, and Major

General Hans A. VanWinkle, Deputy Commanding General for Civil Works, U.S. Army Corps of Engineers.

We are very happy to have you with us this morning, Dr. Westphal, if you will begin the testimony.

STATEMENT OF HON. JOSEPH WESTPHAL, ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

ACCOMPANIED BY:

MAJOR GENERAL HANS A. VAN WINKLE, DEPUTY COMMANDING GENERAL FOR CIVIL WORKS, U.S. ARMY CORPS OF ENGINEERS

MICHAEL DAVIS, DEPUTY ASSISTANT SECRETARY FOR POLICY AND LEGISLATION, DEPARTMENT OF THE ARMY

Mr. WESTPHAL. Thank you, Mr. Chairman.

I do have with me my Deputy Assistant Secretary for policy and legislation, Michael Davis, and I am also accompanied by General Hans VanWinkle, who is Deputy Commanding General for Civil Works, Army Corps of Engineers.

Mr. Chairman, I want to just say, first of all, I think we have given you a complete testimony for the record. I'm going to shorten my oral testimony significantly to allow more time for questions and answers and give you more time to get at some of the issues you want to get at.

I do want to say that I have enjoyed very much and continue to enjoy working with you on the many issues we are facing this year. We are, obviously, in the throes of some very, very important decisions that your committee has to make, that we, as an Administration, are making on a daily basis in light of this program's challenges.

I think the better that we work together with you in addressing these issues and getting answers to your questions and coming up with some sense of a strategy for the future, the better off I think our country will be, because I think we have a great asset in the Corps of Engineers and I think we need to develop a plan for how we are going to address a lot of these problems you've raised, like the backlog issue and mission definitions and things like that.

So I look forward to working with you, both here and in the committee formal structure, but also informally with you and members of the committee.

Mr. Chairman, let me just make—as I said, I just want to be very brief on our bill and give you some highlights of the things I think are very important proposals that we are making in this WRDA 2000.

As you know, the main centerpiece of this bill is the Everglades, and you've already alluded to the hearings and the testimony we've had on that. We also felt this year that we needed to provide you with a piece of legislation that was less project oriented and more oriented toward some very important policy ideas that we wanted to bring forth to the committee and to address on a more national basis.

For us, for the President, the important areas to address here were simply to get to the issues of how do we provide assistance to tribal and low-income communities. What can we do to help?

You made one of your three points that you had alluded to as a concern was the idea that we needed to preserve the partnerships

and the cost-sharing formulas that had been set up in the 1986 water resources bill.

We agree with that, but I think it is time that we all collectively—Congress and the Administration, this and future Administrations—look at cost sharing and see what impact it is having on certain sectors of our economy.

Again, I particularly would focus on tribal and low-income disenfranchised communities, which may involve both minority communities, as well as rural communities.

In this bill, we did look at a number of policy issues that we wanted to bring forth, beginning with a watershed and river basin assessment authority.

We believe that it is very important that, as we move into sort of the new dimensions of our work, which encompass so much environmental legislation and so many other pieces of legislation that have to be addressed as we build projects or as we design and plan and study projects, that we need to look at what we are doing in a more comprehensive, broader basin watershed approach.

I don't think there is any disagreement anywhere that this is the approach that best suits the way we can make decisions, and so we are asking for a clarification or readdressing of this authority, which is established in section 29 of the water resources bill of 1986, to give the Corps of Engineers the authority to undertake broader comprehensive studies in conjunction with other Federal agencies.

Bear in mind that the products of these comprehensive studies would not necessarily mean more Corps projects. It could very well be that these studies will assist EPA, Interior, or a vast number of Federal and State agencies, and especially the States, I think, in addressing the broader programmatic aspects of what is going on on river systems around the country. We believe that is an important part of this bill.

Two areas that are related to this that we are proposing is we are proposing to get more involved and more active participation on the part of the Corps of Engineers in the CALFED Bay Delta program. The Corps, because of its basically project-driven type of program, has not been a real partner in CALFED, and much of the work that is anticipated and much of what I think we are doing in California relates to the work that CALFED ultimately needs to be a part of.

We have got a major comprehensive study going on of the Sacramento and San Joaquin Rivers, and I think those need to be a part of how we look at CALFED solutions, so we are asking for authority for the Corps to have the ability to participate fully in CALFED as an equal member to the other Federal agencies.

We also believe that, while there is a lot of work going on in the Puget Sound area with a variety of projects under different Corps authorities, environmental restoration projects, that, again, this is an area where we need to get ahead of the problem, particularly dealing with endangered species issues, so we are proposing there an authority that allows us to engage in some or initiate a series of what we call "critical projects," which essentially would be small projects that would be seen as a comprehensive effort to address the broader issues in the Puget Sound area. So these projects

would all be tied together. They would all be evaluated on the basis of how they programmatically affect each other.

Now, we think our proposal is also very complementary to legislation that is being introduced in the Senate or has been introduced in the Senate by Members from the Washington delegation. We would go right to projects, and we think that that's important.

The other area of policy you brought up, and that's brownfields. We are doing a considerable amount of brownfields work already through EPA. What we believe is being neglected here is a very important part of this dimension of brownfields, and that's the part that relates to the waters of the United States. That's the part that relates.

Senator Lautenberg mentioned the New Jersey project. These are projects where you've got sites that are adjacent to or on wetlands or river systems or water bodies where there are problems that are pretty significant to both communities and to also the economic growth of these areas and the possibilities for economic development.

We believe that it is our responsibility under our mission in the water resources area to try to address these programmatically, ourselves, indirectly, so we are asking for a very small, a very conservative authority, both budgetarily and project specific, to allow us to go into these specific areas and do some brownfields remediation.

The Conference of Mayors—I saw a study where they had identified somewhere in the vicinity of about 20,000 sites that are in dire need of cleaning up, and for which there are really no resources at the State or local levels.

Mr. Chairman, we also have a series of provisions, as I mentioned, where we are really trying to identify those aspects of tribal and low-income communities where we can be helpful. We are proposing a tribal partnership program. What we want to do here is basically partner up with the tribes with the Department of Interior to look again comprehensively within the boundaries of the reservation to see what we can do in areas like environmental restoration, flood control, and our other traditional mission areas to help and to coordinate the work that the Department of Interior is doing in these areas.

We are also proposing some changes in our ability to pay provisions. Currently, the ability to pay provisions that you have authorized in the past are for flood control and for water supply for agriculture. We are asking to amend that to allow us to do equal ability to pay provisions for the environmental restoration and environmental protection kinds of projects.

We also are asking the committee to consider some changes in our project deauthorization provisions to tighten these up, to make it—to have the time aspects of when we deauthorize projects a little bit shorter, cutting it back from 7 years to 5 years, where we can look at projects, if they don't receive funding for construction within a 5-year period, and consistently throughout a 5-year period they would automatically become deauthorized.

We think this is not the solution to the backlog problem, but it is part of the solution. It is part of the way we get at this issue.

Finally, Mr. Chairman, we are also providing you with a recommendation on making some changes in our flood damage reduc-

tion program, a change in the cost-share on this for structural flood control projects, and also to strengthen our floodplain management requirements in section 402 of the Water Resources Act of 1986 to require the non-Federal interest to take measures to preserve the levels of flood protection that projects provide.

This is a recurring theme, where we build a project designed for a certain level of flood protection, local development ensues, changes happen over time, and we find out that the project is no longer really providing the level of protection that was intended.

We need to get some help from the local communities through some type of management plans that they are going to try to maintain and we're going to try to work with and to maintain the levels of flood protection originally intended and authorized by Congress.

That's a brief summary, Mr. Chairman. Again, there are other aspects of this bill that you may want to touch, but I do appreciate the opportunity to testify before your committee again. I thank you for your efforts to address these issues and look forward to working with you in any fine details of working this bill through as you get to a markup.

Thank you, Mr. Chairman.

Senator VOINOVICH. Thank you.

Does Mr. Davis or General Van Winkle have any comment?

General VAN WINKLE. No, I do not.

Senator VOINOVICH. Senator Thomas has joined us.

Senator Thomas, do you have any statement the you'd like to make?

Senator THOMAS. No, I don't, Mr. Chairman. Thank you. I'm just interested in hearing the testimony.

Senator VOINOVICH. Great. We will move on to the questions, then.

Dr. Westphal, Claudia Tornblom, Deputy Secretary of the Army for Management and Budget, testified when we had our hearing on the backlog of Army Corps projects, and what really puzzles me is I've heard you today, and you're saying, ''Well, you know, we've had our local share or more Federal share, brownfields, and so forth.'' The fact of the matter is there has been mission creep in the Corps of Engineers. You have been taking on more and more projects. This environmental restoration, a very worthy issue, has been added to the Corps' work. We had charts that were presented last week when we had the hearing to show that we were spending the equivalent of about $5 billion a year on WRDA type projects back in the 1960's, and then it went down to about $4 billion in the 1980's, and now, during the 1990's, we're down to about $1.5 billion a year.

It seems to me that, here you are this morning, and you're talking about a very ambitious program, and yet the Administration has come through with a paltry $1.6 billion in terms of their request for Congress to appropriate for these projects.

It seems to me that this is a major issue, and I would like to know why it is. I mean, you're asking for more and very ambitious. Why hasn't the Administration asked for more money? The fact that we need another $1.5 billion in order to just stay even with these projects, why hasn't the Administration come forward and asked for additional dollars?

Mr. WESTPHAL. Well, Mr. Chairman, first of all, we didn't ask for additional dollars for authorities we do not have, so what we were constrained by in our budget recommendation were really the projects and the authorities that we have presently.

What we believe is that, in fact one of the areas you mentioned in your opening statement, you talked about what we call—a rather "catch-all" term for what we call "environmental infrastructure." You mentioned sewage treatment plants and waste treatment plants and that type of thing. There is a growing demand around the country for us to participate in some of these activities. There are areas, particularly rural areas, for example, in Appalachia where there is a considerable amount of need locally to address water quality needs by cleaning up water.

There is an increasing pressure, both from Congress and from local constituents, to get us into that picture, because the loan pay revolving fund you mentioned isn't adequate the meet the national needs, so a $1 billion or $2 billion fund—whatever it is, I don't know the exact amount—to meet about probably a $200 billion need around the country.

So we are facing the increasing interest on the part of Congress and on the part of mayors and local constituents and States to get into this area, but we are not—the Administration did not propose projects in this area, did not request continued funding for projects that had been funded in the past in this area.

So I think our budget request was very responsible, given our constraints and our backlog.

Now, we are asking——

Senator VOINOVICH. I mean, if you look at the record, they are inadequate. I mean, the point is that you have expanded during this last Administration into a lot of areas—environmental restoration, very expensive projects. We've got some other projects here that are in this budget that are very expensive.

It seems to me that, consistent with the request, should have been the research for additional dollars and that there should have been some reallocation of resources to say, "We have these unmet needs. We are asking for more money. We know that this is not adequate," and an effort should have been made in order to come up with some more money.

You've got all these people are sitting here and they expect they're going to get these projects authorized and the money is going to be forthcoming, and the fact of the matter is there ain't no money.

We've got the appropriations. I'm just saying that this is—you know, it doesn't make sense to me.

Mr. WESTPHAL. I'm not arguing with you, and I think you are right, to a great extent. We were limited, as your appropriators are limited, by the constraints of the budget agreements that were made earlier and by what were then, when we were putting together our budget, some pretty limited caps on our budget allocations. So the budget we submitted was based on a very constrained view of what was going to happen with what flexibility—what was going to happen with respect to——

Senator VOINOVICH. Let me just say this: we've got a bill that just passed the House. It is called CORA. It is asking to use the

offshore revenues from oil to come in with a new entitlement to pay for a lot of wonderful programs. Does the Administration support that legislation?

Mr. WESTPHAL. The Administration has supported aspects of that legislation. I can't tell you specifically whether the bill got full Administration support. I don't know.

Senator VOINOVICH. Well, I'd look into it, because that money now is being used to reduce the national debt, but if I were in the Administration, I'd be arguing that, before we go off with the new program, a new entitlement program with the unmet needs that we have here with WRDA, that it doesn't make sense, and that if we've got this money and people want to spend it in this area, then let's use it to pay for these unmet needs in WRDA.

I've run out of time. Senator Baucus?

Senator BAUCUS. Mr. Chairman, Secretary, as you know, in the agricultural appropriations bill there is a rider which essentially prohibits the Secretary from restructuring, reorganizing, abolishing, transferring, etc., etc., and it is probably in response to forums that—and I use that word advisedly—that you proposed at the end of March. Could you comment please on that rider, the degree to which it would help you or hinder you in your efforts to perform perhaps more increased oversight and, perhaps as a result of some articles that have been in the "Washington Post" lately, but basically will that rider on that appropriations bill help you or hurt your efforts to make the Corps more efficient, organize it, and why.

Mr. WESTPHAL. Well, I believe the rider is a pretty severe constraint on the President's ability to manage government. I believe that if you—the last one that I read, the last version of it that I read—and I assume it's the final version that was in the legislation—did not specifically mention who was prohibited, other than that no moneys could be spent.

The way I read that, it meant that no one—no chief of engineers, no Assistant Secretary of the Army, no Secretary of the Army, no Secretary of Defense, no President—no one could in any way, shape, or form do any reorganization or streamlining or correct any aspects of the way the Corps has managed or organized our structure.

Now, typically, I mean, generally speaking, any major reorganization of the Corps of Engineers would require Congressional approval. The last time that happened was a few years ago, before I came on board, and it was quite a long and arduous process that eventually ended with Congressional approval of it. And Congress has been quite active in making sure that that reorganization continues to go on the path that Congress approved.

What the Secretary tried to do here, in light of all that was going on, was simply to make a clarification—and I think the term "reform" was probably an exaggeration of what it is—is to make a clarification as to what the law passed by Congress, by the Senate and by the House, title ten, really specifies.

For the most part, it states very clearly what the chain of command is, where the authorities lie, and they are all in law, and it was merely clarifying the law. It was merely stating what title 10 says. He was merely expounding on already existing, pre-existing general orders of the Secretary of the Army that have been around

for years, and I think it just got exaggerated in terms of what that implied.

I think that there were concerns that that meant that somehow the Secretary of the Army would be preventing the Corps from having a direct relationship with Congress or be able to—would limit the ability of the Corps to provide information to Members of Congress, none of which was ever anticipated or planned or intended by the Office of the Secretary of the Army.

Senator BAUCUS. So it is your belief that perhaps the sponsors of that rider are mistaken as to the intent of the Corps' court reforms?

Mr. WESTPHAL. Well, I understand their concerns and I understand there has been so much in the press and there are so many rumors and allegations and things flying around in the back circles of the House and the Senate and in Washington, in general, that I understand their concern. But I do think if we are given the opportunity to explain what the Secretary really was proposing to do here, then I think their concerns would be——

Senator BAUCUS. So you think their concerns are being significant alleviated, but you are also saying, if I hear you, that the rider virtually prevents the Corps from making any kinds of——

Mr. WESTPHAL. Well, the Chief of Engineers, for example, is in the process of—the current chief is in the process of doing some reorganization of the Corps, pretty significant reorganization, particularly here at headquarters, and I believe that, under that authority, that language, he would have been prohibited from doing that, and we——

Senator BAUCUS. Yes. I'll read the language. ''Notwithstanding the provisions of 10 U.S.C. . . . . none of the funds made available in this or any other act may be used to restructure, organize, abolish, transfer, consolidate, or otherwise alter or modify the organizational or management oversight structure, existing delegations, or functions, or activities applicable to the Army Corps of Engineers.''

That, to me, sounds like none of the funds could be spent to do much of anything within the internal administration of the Corps.

Mr. WESTPHAL. The Chief of Engineers, himself, has management responsibilities, and, to some extent, oversight responsibilities over his districts and divisions, and this is a very big organization, and we'll have a new Chief of Engineers coming on board very soon, I hope, pending confirmation by the Senate, and——

Senator BAUCUS. I know my time has expired.

One other question. As you know, Senator Daschle has introduced a bill to establish a commission to study the Agency's operations and recommend any potential reforms to the Congress within 2 years. What is the Administration's position on that bill?

Mr. WESTPHAL. Well, the Administration has been working on the bill. I believe the Administration supports the concepts of Senator Daschle's bill. I think that they are looking forward to working with Senator Daschle on the more-specific details of his proposal, but the concept is something the Administration supports.

I spoke with Senator Daschle yesterday on this bill, and I think he is very willing to work with the Administration to fine tune it to the extent that we can——

Senator BAUCUS. What are the options? At least one draft of the bill is for the commission to study whether it is a good idea to separate the civil works function from the Army. What is your view on that?

Mr. WESTPHAL. Well, I believe that—my personal feeling is, of course, that I believe the Army Corps of Engineers belongs in the Army, and I think that the traditions and the culture and the way in which the program is managed and the responsiveness of the Corps of Engineers is a great asset to the Nation, at least partly because it is an Army organization. I believe, personally, that it is in the right place.

Senator BAUCUS. Thank you. My time has expired.

Senator VOINOVICH. Senator Lautenberg?

Senator LAUTENBERG. Thanks, Mr. Chairman.

Dr. Westphal, one of the questions that has already been touched on here that I would like to pursue for just a moment is the brownfields program and the assistance by the Corps of Engineers. The question raised is, well, why the Corps should be involved in yet another project. The fact of the matter is that we do ask so much of you, and I think the chairman kind of hit it on the head—more work, less money. It doesn't work well.

What is the importance of the Corps' involvement with the brownfields project? You have very specific criteria, and I would like you to restate those.

Mr. WESTPHAL. Well, Senator, most important, I think, is the fact that the Corps of Engineers has the capacity, the capability, the talent, the skill, the people to do this kind of work, and there are very few others able to do it.

We are, for the most part, the agency that carries out the technical work of the Superfund program, and we do it very well for brownfields. I don't know if General Van Winkle health as statistics on that.

Senator LAUTENBERG. Wasn't the focus of your attention, the Corps' attention to this, the fact that it might be in an area that could contaminate tributaries, streams, etc., and that that then expands the risk that this site can produce additional pollution because it is not a wholly contained entity.

Mr. WESTPHAL. Right. I mean, many of the brownfield sites around the country are, of course, around and on the shores of our major rivers and streams, and that is an area where it is of real concern because of the movement of sediment, because of the dangers it poses to surrounding development. So, as you develop these inner harbor areas, as in the area that you represent, where there is increasing requirement and demand for development closer and closer to the water, this becomes even more and more critical.

Senator LAUTENBERG. The focus of your interest and your recommending Corps involvement here is in those sites—are we specific—those sites that have some additional risk posed as a result of their nearness to a stream or a river?

Mr. WESTPHAL. Or where there are wetlands affected or waters of the United States. We are not asking for authority to go in and work in areas that are totally—say an area that is totally on upland. We would work through EPA on that.

Senator LAUTENBERG. I just wanted to be sure on that. You know, we are kind of fixated on this dredging project. We have been kind of stalled in a bi-State dispute, and it is worrisome. But another question that has been raised that creates a lot of attention is, what do you do with the disposable material? We know that there is material that qualifies, under EPA standards, for ocean dumping because the contamination levels are not critical. What are the plans for disposal of other material that doesn't meet that yardstick?

Mr. WESTPHAL. Well, currently there are a number of areas for disposal of contaminated material that don't meet the standards for ocean disposal. Frankly, as you well know, in that particular part of the country where the need is great and increasing, we are probably going to have to work closer with the States of New Jersey and New York to find additional sites in the future. But we do have capacity, and certainly in your State there is a good deal of capacity to address the future needs and near-term needs of contaminated dredge material.

The Corps, again, is doing, I think, a terrific job. I have been on those sites a number of times. They are doing a terrific job in New York and New Jersey Harbor, both in terms of the science and working with the local communities to find these sites and develop these sites, and I think it is a very difficult job but they're doing a great job.

Senator LAUTENBERG. We're talking about land disposal.

Mr. WESTPHAL. Right.

Senator LAUTENBERG. And it is your contention, as I just heard it, that in New Jersey there is adequate place for it. That would surprise a lot of people in New Jersey. We think that there is a lot of room in New York State for disposal.

Mr. WESTPHAL. Well, you know, I am cognizant of that issue, and I believe that the State of New York is making an effort to find its future sites, as well.

Senator LAUTENBERG. I thank you.

Mr. WESTPHAL. We'll work with them to do that.

Senator LAUTENBERG. Thank you.

Thanks, The CHAIRMAN.

Senator VOINOVICH. Senator Chafee?

Senator CHAFEE. Thank you, Mr. Chairman.

Mr. Secretary, in your prepared testimony you say that, "Pursuant to the Water Resources Development Act of 1986, the Army civil works program began to change in response to the many new water resources challenges facing this Nation." So it has been 14 years of a changing mission.

My question would be: in the course of this change, your relationship with EPA, how has that been a cooperative partnership, and how do you see it continuing into the future?

Mr. WESTPHAL. Well, I think the relationship has improved dramatically over the years as the two agencies have had to work closer and closer together. I think there are areas in the country where it works very, very smoothly, and then there are other areas where, because the issues are so controversial and so difficult, sometimes the relationships are a little bit strained. I mean, that's the reality, to be perfectly honest. But overall I think the leadership of both

agencies, both at my level, at the regional levels, are very, very good.

To cite again New York and New Jersey, as an example, where there is so much controversy going on over so many issues, the regional administrator of EPA and our division commander and district engineer have a very, very good working relationship and very, very consistent and good dialog on all these issues.

I believe that the future requires that. I think the States must be treated fairly, and for the States to be treated fairly these Federal agencies have to work together and have to have better relationships and better communications, and they have to have that communication, I believe, from the beginning for it to be really successful.

Part of the problem we face at times is that sometimes the communication isn't as good at the very early stages of a project, and then suddenly toward the end we find that we've got problems. We've got to remedy that, and I think we are working to do that.

The Council of Environmental Quality is very concerned about that, and I think working to try to bring regional folks together to work better at the early stages of a project.

I don't know if that answers your question, but——

Senator CHAFEE. Yes. Thank you very much. I'm sure that whenever the standards are high there is going to be tension.

Mr. WESTPHAL. That's right. Well, there is tension because, obviously, our agencies are driven by different missions. EPA is a regulatory agency, the Corps is a construction—it's a builder. The Corps' mission—you know, the Corps sees its mission, it has an authorization, it has an appropriation, it has a bill signed by the President. It wants to move forward. And then it must and has to comply with all Federal laws, and in doing that it has to interact with these other agencies that, to some extent, have either a check on the process or have a great deal to say that will impact future decisions or possibly send these cases to the courts.

We spend a great deal of time, Senator, in trying to keep these projects outside of the courts. A lot of our motivation is to say, "Let's work together to avoid future litigation, because that inevitably costs the taxpayer a significant amount of money, and we are trying to avoid that as much as we can."

Senator CHAFEE. Thank you.

Senator VOINOVICH. Senator Thomas?

Senator THOMAS. Thank you, Mr. Chairman.

I guess I would be derelict if I didn't remind you again that I asked some questions and submitted them three hearings ago and have not yet gotten a response.

Mr. WESTPHAL. Yes, Senator. I was told that. I wasn't at the hearing last week. I think you brought that up, and I was told that those questions have now been answered and I believe were delivered or should be delivered to your office today or yesterday. I apologize for that.

Senator THOMAS. I don't think they were yesterday. They may be today. Anyway, I appreciate that.

I won't take long. I guess I have to pursue a little bit the same thing. You mentioned here you are involved with Indian lands on the transfer of lands from Indians or from a project. Why would

Corps of Engineers do that? Why would you be involved in a study of economics, of culture, and so on? Just, you know, when we are seeking to identify the role and justify the financing for an agency, why would you be in that field?

Mr. WESTPHAL. Well, there are two different proposals in this WRDA bill. One is we continue to be asked quite a bit by tribes around the country to help in a variety of different ways, and we don't have a mechanism for directly working with the tribes on many of these issues that are water-related—that are environmental restoration types of projects. We don't have a way of doing that very easily.

What we are asking is the authority to be able to work with a tribe in essentially doing the same kinds of projects that we would do in other parts of the country, but doing them through the Department of Interior and through the tribe, directly. That's one authority.

The other area is that, as a result of the Pick Sloan project, we've got lands that obviously belonged to the tribes at one time that we believe can be transferred in the future to these tribes. They are surplus lands. They are lands that would certainly add some benefit to the tribes. We don't see a problem in terms of the operation of our projects, and we simply are looking for the authority to be able to do some assessment or study of how we would transfer those lands and the economics and the environmental requirements of doing so.

Senator THOMAS. There are other people who do that professionally, you know.

In land management, you point out here the number of recreation areas and all those things. There are a number of land management agencies in the Federal Government. If we were to sit down and take a look at reorganizing for the purpose of being most efficient, would you be managing recreation areas, do you think?

Mr. WESTPHAL. Well, you know, all our recreational areas are attached to our projects——

Senator THOMAS. Yes, I know, attached to water. That's what you'll say about everything we ask.

Mr. WESTPHAL. Right.

Senator THOMAS. But there are a lot of things that are managed that are attached to water that aren't managed by the Corps of Engineers.

Mr. WESTPHAL. Right.

Senator THOMAS. They are recreation areas. They don't have anything to do really with the water except the water is there.

Mr. WESTPHAL. Right.

Senator THOMAS. I don't mean to be argumentative, but it seems like you are very defensive about not only doing everything that you've done since 1776, or whatever you put out here, but, indeed, wanting to expand it, when we ought to be looking at ways to make this government more efficient, combine agencies that do things, submit more things to the private sector than we do now, and you appear, Mr. Secretary, to be wanting to embrace everything you can get your hands on. Is that a fair analysis?

Mr. WESTPHAL. I don't think so, Senator. Let me tell you, on the recreation we would like to privatize a good deal of our recreation,

but, frankly, won't get any takers because it is in such bad condition, and because of——

Senator THOMAS. You've been a great manager then, haven't you?

Mr. WESTPHAL. Well, funding is a problem.

Senator THOMAS. Of course it is a problem.

Mr. WESTPHAL. And our recreation—in order to make a transfer of a recreation to a private sector, they are required by Federal law to do feasibility studies, which are fairly costly, so if they are going to engage in taking over recreation facilities, they've got to put out a considerable amount of money.

So what we're trying to do here on our recreation modernization, which is in our appropriations request we made this year, was to, candidly, bring some of these recreational areas to—we'd say "modernize" them, but we are talking about fixing them up so that they are reasonable and decent for people to use.

We are not looking for more recreation. We're not looking to expand our recreation program. If anything, we would be delighted to be able to have more opportunities to lease some of these recreation areas or to privatize them.

Senator THOMAS. I bet you could, and I'll be happy to help you.

Mr. WESTPHAL. Good.

Senator THOMAS. You know, finally, more of a comment, you are talking about doing these things. We're finding this Administration expanding more and more without coming to the Congress. If you want some authorities or don't have authorities and so on, why don't you put together a package and bring it to the Congress? I mean, I think that is the system.

The idea that you just reorganize and say, "Well, we need the authority to do that," I don't agree with that. We're seeing that in the Forest Service. We're seeing it in BLM. We're seeing it in the land management agencies just kind of going around the Congress. I think you're going to find a lot of opposition to that idea. If you think you ought to change some things, you ought to put together your package and say, "Here's what we ought to be doing," and bring it in, rather than just going on. I just feel strongly about that.

Mr. WESTPHAL. I agree with you, Senator, but I think our agency is very responsible in that capacity. I mean, I think some of the things that are in this WRDA proposal that we are asking you to consider are things that we can, to some extent, if we stretch it the way you are saying, we could probably do some of these things.

Senator THOMAS. I'm not talking about what you do. I'm talking about how you organize and what your mission is. Now, if you are going to expand your mission by taking on different projects all the time, it just seems to me that, in a management standpoint, we ought to establish uniformly so that we all agree, "here is the mission," so that then we can look at the things you recommend and say to ourselves, "Is this working to accomplish the mission?" But we don't do it that way. We kind of keep the mission a little bit secret and just keep adding projects to where, finally, when you get to a point, no one knows what the hell the mission is.

I just sense a little of that. I understand the difficulty, but I wish you would think about it a little bit—defining where we want to

go and where we want to be in 20 years so that we can measure and you can measure the steps we are taking to see if, indeed, we are going to accomplish that goal.

Mr. WESTPHAL. Senator, that is a good idea. And we are working on the development of our strategic plan, and I'll try to make a point of bringing that to you as we develop it and———

Senator THOMAS. I would appreciate it.

Mr. WESTPHAL [continuing]. Work with you on that, because I think that is a vehicle for doing what you are suggesting.

Senator THOMAS. Sure. And I appreciate that. Thank you, sir.

Mr. WESTPHAL. Yes, sir.

Senator VOINOVICH. Dr. Westphal, I've got a couple more questions. One is a comment, and that is that the brownfields projects—and I can see the logic that it is close to the water and so forth—are being done, but I understand that it is being done on a reimbursable basis.

Mr. WESTPHAL. Yes, sir.

Senator VOINOVICH. And now you want the Federal Government to come up with some money to take care of it, and I think one of the members of this committee wants even more money for brownfields. Again, with the backlog of projects and the other projects, to come in and say—it's, like, 25 now, and then it is 50, and before you know it, it gets back to what I think Senator Thomas was making, is that you've expanded the mission and the issue is you don't have the resources to do it, so you really ought to concentrate on the things that are fundamental to the core Corps responsibilities.

In regard to cost sharing, the Administration's bill modifies authority in WRDA 1986 to authorize river basin and watershed planning studies to be cost shared on a 75 percent Federal/25 percent non-Federal. WRDA 1986 established study costs of 50/50. As already mentioned in my statement, where you have many jurisdictions involved, I think it is important that you have good cost sharing, because in the beginning on planning—it is much easier to get them together after the study is completed. Why the change? Why the recommendation for more money?

Mr. WESTPHAL. Primarily because I think these low-income tribal communities simply can't meet the requirements, and therefore they get left out of the picture.

You know, part of what cost sharing—and I'm going to give you sort of my personal view here—what I've seen in my short tenure here is that, you know, we have got a law that we passed in 1986. Now it is the year 2000 and we need to look at what the impact is.

We are having a lot of communities out there that have the resources, have the money, can raise funds, can raise taxes——

Senator VOINOVICH. This is for river basin. I'm not talking about the tribes. I'm talking about river basin.

Mr. WESTPHAL. OK. On the river basin, the study proposed—the study authority, that traditionally is 100 percent Federal, and on this one we are moving to bring more local share so they can have a buy-in to the whole idea of assessing the broad watershed, if that's what you're talking about, that's the provision you're talking about.

Senator VOINOVICH. No. What I'm talking about is the rivershed basin and watershed planning studies to be cost shared on a 75 Federal/25, and in the past it is 50/50. You're just asking for more Federal money.

Mr. WESTPHAL. No. On the existing authority, section 29, I believe that's 100 percent Federal, and so we are moving that to a 75/25.

General VANWINKLE. Senator, if I could help out, I believe that certain of our studies—729 was on the books previously, and that was at 100 percent Federal—had not been used to a great deal. Our other larger studies had been cost shared at a 50/50, so there really were two different types of projects involved in this, one under the previous authority, which had been 100 percent, but not much used. The normal sorts of studies that we do, which were typically cost shared at 50/50—and so this would sort of meet at the middle. Larger watershed basins in the proposal is to cost share at 75/25 percent—to make sure we understand.

Senator VOINOVICH. The only point I'm making, it's more Federal money.

The Administration bill includes an authorization, short appropriation, of $5 million to participate in the CALFED Delta program, and we understand the program has been receiving a large Federal appropriation through the Bureau of Reclamation. Again, what is the justification for the Corps' participation, you know, $5 million in regard to a program that has been receiving quite a bit of money from the Bureau of Reclamation?

Mr. WESTPHAL. This is essentially for our ability to participate in this program as an equal partner with the other agencies. Again, because of our funding nature being project driven, as we are, we have no flexibility in our budget to fully participate in the CALFED initiatives.

Now, we do have some fairly big projects that are ongoing that have been funded under separate authorizations by Congress that will inevitably be part of the overall CALFED solution, but what we want is the ability for our district and divisions there in California to be fully involved and engaged in the CALFED decision process, and that's why we are asking for this authority.

Senator VOINOVICH. Senator Baucus, did you have any more questions?

Senator BAUCUS. Yes, Mr. Chairman, just a couple of brief ones.

The first one, Secretary, is with respect to deauthorizing Corps' projects. It is my understanding that there are about 123 projects in backlog with an estimated cost of $4.5 billion that are eligible for deauthorization under current law, and I further understand and heard you say in your testimony that you'd like to tighten that up a little bit, including automatic deauthorization of projects not receiving construction funds during any consecutive 5-year period, and then you tighten it up a little more.

Assuming we were to pass that recommendation of yours, how many more additional projects would be deauthorized? Do you have that data, that figure?

Mr. WESTPHAL. I don't. I think we'd have to get you that for the record. We'd have to look at it.

We had some conversations, after the hearing last week, that we needed to actually look at those kinds of numbers, so why don't we put those together and try to get you those separately.

Senator BAUCUS. So, just to clarify for everybody—I think the chairman is asking the same question—an authorized project must receive funds during seven full years immediately preceding the transmittal of the list to Congress to remain authorized?

Mr. WESTPHAL. That's generally—you know, that could be study money.

Senator BAUCUS. Exactly right.

Mr. WESTPHAL. Right.

Senator BAUCUS. That could be study money, that could be anything, and that's why you are suggesting automatic deauthorization for any project which construction is not initiated within 7 years of authorization.

Mr. WESTPHAL. Within 5 years.

Senator BAUCUS. Pardon?

Mr. WESTPHAL. I'm sorry. Right.

Senator BAUCUS. Seven years——

Mr. WESTPHAL. Right.

Senator BAUCUS. And otherwise no funding construction funds during any consecutive 5-year period.

Mr. WESTPHAL. Right.

Senator BAUCUS. Those are both additional limits that you are suggesting.

Mr. WESTPHAL. Right.

Senator BAUCUS. I'd appreciate if you could get that information to us. That is how many more would be deauthorized——

Mr. WESTPHAL. We'll do that.

Senator BAUCUS [continuing]. As a consequence.

[The information referred to follows:]

Senator BAUCUS. One other point on environmental restoration—and it is clear that some of the restoration projects are a consequence of adverse impacts from Corps projects, and for that reason many feel that there should be some environmental restoration.

I'm just curious what the Corps is doing now to prevent degradation of the environment in Corps projects now.

Mr. WESTPHAL. Well, there has been clear guidance from Congress. I can actually quote it for you. In the 1990 water resources bill, section 306, it stated that the Secretary of the Army shall include environmental protection as one of the primary missions of the Corps of Engineers in planning, designing, constructing, operating, and maintaining water resource projects.

Would that guidance to the field make that a requirement? The Corps must comply with all current existing Federal regulations dealing with the environment.

Senator BAUCUS. What about projects, though, that were authorized before NEPA, before the Endangered Species Act? I mean, is there need for environmental restoration there?

Mr. WESTPHAL. Well, sometimes there is, and we are engaged—we have the 1135 authority that allows us and permits us to go back and review those projects and modify them as needed. Generally, we've got a lot of those projects going on around the country.

It's pretty significant. I don't know what the number is off the top of my head, but——

Senator BAUCUS. And I understand there is some concern about so-called "mission creep," but, you know, my view is I'm less concerned about who gets the job done so long as the job gets done. I just urge us to kind of keep an open mind when we look at this question.

Thank you.

I thank the chairman.

Senator VOINOVICH. Senator Lautenberg?

Senator LAUTENBERG. Nothing more, Mr. Chairman.

Senator VOINOVICH. Senator Chafee?

Senator CHAFEE. I want to thank you very much. We look forward to continuing to work with you as we put the bill together.

Thank you, Mr. Chairman.

Senator VOINOVICH. Our next panel is going to consist of: Doug Sutherland, county executive for Pierce County, Washington, on the Puget Sound restoration project; Lillian Borrone, director of port commerce, Port Authority of New York and New Jersey on the Port of New York and New Jersey project; Barry Palmer, executive director of Dinamo on the Ohio River project; Mayor Dannel P. Malloy, City of Stamford, on brownfields; and Howard Marlowe, president of the American Coastal Coalition, on beach projects.

I'd like to welcome all of you here this morning, and we'll begin with Mr. Sutherland.

Senator BAUCUS. Mr. Chairman, I'd like to welcome Mr. Sutherland, who is from Montana.

Mr. SUTHERLAND. Hi. Thank you very much, Senator. I, indeed, was born in Helena, Montana, a number of years ago, and my family was long time and still many of them in that branch of the family are still there. I'm part of the black sheep of the family, and we migrated west.

Senator BAUCUS. In any event, welcome.

Mr. SUTHERLAND. Thank you very much.

STATEMENT OF DOUG SUTHERLAND, COUNTY EXECUTIVE, PIERCE COUNTY, WASHINGTON

ACCOMPANIED BY:

DENNIS KENTY, KING COUNTY ENDANGERED SPECIES POLICY OFFICE

Mr. SUTHERLAND. Good morning, Mr. Chairman and members of the committee. Let me say first of all that I am truly appreciative of your invitation allowing me to come testify before your committee on this issue, the Water Resources Development Act of 2000.

My name is Doug Sutherland. I am the county executive of Pierce County, which is the second-largest county in the State of Washington. Joining me today is Dennis Kenty of King County's Endangered Species Policy Office, who will be here to help answer questions, if there are any.

I would like to speak about habitat restoration in the Puget Sound basis, the subject of section 19 of the Administration's proposal for the Water Resources Development Act of 2000.

The motivation for this initiative is a crisis that we are facing with salmon populations in the Puget Sound. The decline of Salm-

on populations has resulted in several Puget Sound salmon stocks, such as chinook, chum, as well as gold trout being listed under the Endangered Species Act in the last year, and more salmon stocks are likely to be listed in the next 2 years.

The loss of Puget Sound salmon is a major economic and cultural, as well as environmental issue. The region once boasted one of the strongest commercial and tribal fishing industries in the west coast. Today, the Puget Sound fishing industry is on its last legs, and tribal and commercial fishermen face rampant unemployment and a very uncertain future.

Recreational fishing for salmon used to be big business in the Puget Sound area, as well, with hundreds of boat liveries, bait shops, and boat and motor dealers dependent upon the annual salmon runs. Many of these businesses today are gone.

The endangered species listings are likely to spread the economic pain to all sectors of the Puget Sound economy. We are already seeing major delays in crucial public works projects, including roads, bridges, and flood protection projects.

Private industry is also feeling the pinch as new construction is delayed and modified to address these endangered species issues.

So far, our economy in the Pacific northwest has allowed us to absorb the impact of these listings, but the fist big wave of new regulations are likely to go into effect within the next 6 months. The potential consequences of the Endangered Species Act on our economy are huge, with every sector facing major new costs.

I have been working with local officials and leaders of the business, terminal, and environmental communities for the past 2 years to define a strategy to address the environmental and economic consequences of declining salmon runs. Our alliance, called the "Tri-County Group," is in the final stages of developing a proposal to rebuild salmon populations in the Puget Sound area. One of our cornerstones of our proposal is to restore salmon habitat on our rivers and streams. After a century of farming and timber harvest and urban development, the dams and navigation projects, some of our rivers are, indeed, in poor shape for salmon production.

Now, mind you, this listing of the Endangered Species Act is the first time that you've seen an act applied to a species that is over a significantly large area in probably one of the most densely populated areas affected by this listing. Scientists tell us that we will need an aggressive program to repair habitat if we are to have any hope of bringing salmon back to our rivers.

Local governments in the tri-county area have pursued an aggressive strategy to rebuild salmon habitat in our region. Pierce, King, and Snohomish Counties and our major cities have spent more than $15 million a year in local funds to purchase and restore habitat since 1998, and we have committed more than $100 million in our own local funding to habitat projects over the last decade. This is not a new program for us. We have had great successes working with the Corps of Engineers on habitat work.

On the Puyallup River in Pierce County, for example, the Corps shared the assistance with levee setbacks and property purchases that allows us to restore hundreds of acres of floodplain habitat. Our neighbors to the north, King and Snohomish Counties have cosponsored several successful habitat projects and two major studies

with the Corps. We have found the Corps to be a capable and an enthusiastic partner.

We would like to expand this successful model to the 12 counties in the Puget Sound as a whole. The authorization we are seeking would allow the Corps technical and financial help to be available to local governments and the Indian tribes throughout our basin.

Focusing on Puget Sound as a whole will allow us to target funding for the most effective habitat projects. Using the base to my prospective and the restoration plans that are in the development of the 17 watersheds around the Sound, we intend to focus Federal and local funding on a highly effective and efficient strategy to rebuild salmon habitat.

Thanks to the Washington Congressional delegation, and particularly Senators Gorton, Murray, and Representatives Inslee, Dicks, and Metcalf, legislation has been introduced in both houses of Congress to authorize new Corps habitat restoration program for Puget Sound. There are several key points in the Congressional bill that I would like to recommend be included in the Water Resources Development Act, and with your concurrence, Mr. Chair, let me quickly run through those.

First, I respectfully request that the committee authorize the program at the $125 million level proposed by the Congressional bills. The Puget Sound basin is larger than the State of Maryland, and would require habitat restoration work in every one of its 17 major watersheds. Authorization at $125 million will provide the funds needed to realize the full potential of the Federal and local partnership.

Second, I strongly endorse involving State, local, and tribal interests in addition to the Federal fisheries agencies in selecting projects to be implemented under this authority. This will ensure that projects fulfill the local needs and complement other salmon recovery initiatives.

Third, I request that the program have cost-sharing terms and encourage full participation by local government and tribal sponsors. Specifically, I strongly support a partial waiver of cost-sharing requirements for terminal sponsors and a 75/25 formula—75 Federal and 25 local—for projects in the areas with prior Corps flood protection or navigation projects.

Senators thank you so much for your consideration of this valuable program. We are committed to moving ahead to bring salmon back into the Puget Sound, and we look forward to a strong partnership, a continued partnership with the Federal Government through this initiative.

Thank you so very much.

Senator VOINOVICH. Thank you.

[The prepared statement of Mr. Sutherland follows:]

Senator VOINOVICH. We are now going to hear from Lillian Borrone, who is the director of Port Commerce.

Ms. Borrone?

STATEMENT OF LILLIAN BORRONE, DIRECTOR OF PORT COMMERCE, PORT OF NEW YORK AND NEW JERSEY

Ms. BORRONE. Thank you, Senator and members of the committee. I appreciate the opportunity to testify on behalf of the Federal

navigation project and related matters of importance to the New York/New Jersey region and to the Nation.

As I begin, I'd like to take a moment to recognize the invaluable work and untiring efforts of retiring Senators Frank Lautenberg and Daniel Patrick Moynihan. On behalf of the Port of New York and New Jersey and the citizens of our States, we will miss them. Their leadership has been tremendous and they will be sorely missed for reasons that go well beyond our port.

Historically, the Port of New York and New Jersey has been the gateway for much of the Nation's imports and exports. Today, the Port of New York and New Jersey is the third-largest U.S. port and the busiest Atlantic gateway. We have the largest petroleum products and automobile trades in the country, and last year our container volume was 2.5 million 20-foot equivalent units, a growth of just over 67 percent in 4 years, and the cargo volumes at our port, like the rest of the Nation, are predicted to continue to grow. Trade growth nationwide is projected at 4 percent a year in the years ahead, and we have taken a conservative estimate of 3.7 percent for growth in our harbor. That means a doubling of cargo volume in our harbor during this decade.

That realization in 1998 prompted us to undertake a major review of the impacts of that kind of growth to determine what new investments would be required in our marine terminal, our roadway, our railway, and our waterway infrastructure to meet that kind of future demand. The results of that review are contained in an investment options plan that identifies up to $7 billion in local investments to modernize and expand the major components of our port's infrastructure, including channels.

Coupled with projections for strong growth in international trade area changing trends in the maritime industry. As Senator Lautenberg depicted in his earlier slide, in the summer of 1998 the ''Regina Emeris'' called New York Harbor, making her first U.S. stop on her inaugural east coast tour. While the ''Regina Emeris'' has been the first of the large vessels to call at our harbor, she is not the only one we will see. In fact, as of the first quarter of this year, there are 101 deep draft or post-Panamax vessels container ships sailing in the world's trade, carrying 14 percent of cargo traded throughout the world. In addition, another 130 vessels are on order. That will more than double the number of these giant vessels serving trade around the world.

It is now clear that this is no longer a prediction; it is a trend. These larger vessels and their trade lanes are not the extraordinary occurrence for specialized cargo that was the view of the WRDA 1986 debate, but rather it is a fact. It is an industry standard, much as the corresponding channel depth will be the standard.

The trend in the maritime industry is no different from technological developments in other transportation modes. In fact, we view this as the ocean equivalent of the wide-body jet or tandem trucks and double-stacked train units, all of which are now very familiar sites around the world.

Given the long time that it takes to carry out—actually, to plan and then carry out major infrastructure investments, and the certain knowledge of the pressures that trade and technology will bring to our gateways, we don't believe the country can afford to

put off project authorization and funding decisions until commerce is choking the channels of U.S. ports with modern ships that require modern depths.

In recognition of this direction in ocean shipping and our inability to fully accommodate these new vessels in New York Harbor, our Congressional delegation, including Senators Lautenberg and Moynihan, helped authorize a Corps feasibility study, the New York/New Jersey Harbor Navigation Study, which was completed at the end of last year, and the chief's report on that project was signed earlier this month.

In short, that report recommends the deepening to 50 feet of the major channels that lead to the major container terminals in the port.

I have included in my formal testimony a map that shows the various channels included in the project recommendation.

What's the value of this project to the Nation and why should the Nation invest in New York Harbor? Well, the Corps study found that the project would realize an annual benefit totaling $238.5 million in national transportation cost resulting from the larger vessels being able to call on the Port of New York and New Jersey directly rather than diverting to another port, only to have goods bound for the New York/New Jersey region trucked or railed back into the bi-State area.

That scenario has national consequences in terms of wear and tear on the Nation's road and rail network, air quality, highway congestion, freight delivery time, and overall quality of life.

As you know, a ship the size of the "Regina" carrying 6,000 containers, a volume of that size would require 6,000 trucks or 1,500 to 3,000 rail cars, depending on how many we accommodate on each of those cars.

So, in our view, providing direct all-water service to the region is both a more economical as well as an environmentally preferred method of serving our market, but the national interest goes beyond those numbers, significant as they are. The Port of New York and New Jersey is in the heart of the Nation's largest and most affluent consumer market. There are 18 million consumers that live and work in our immediate metropolitan region, and we reach over 80 million consumers within 1 day's truck drive from our docks, a ten-state region that stretches from Maine to Maryland, from Cape Cod to the Ohio River. Add to this broad market base the fact that the rail freight system allows our port to directly serve the southeast and midwest and beyond, including into eastern Canada.

Most consumers of the inland coastal states probably don't think about seaports contributing greatly to their quality of life, but we at the Port of New York and New Jersey are not just a regional port.

So, given the Nation's growing involvement in world trade activities, we believe that the Nation has a significant interest in maximizing the port's potential to serve the national consumer demand.

Now, Mr. Chairman, ports among the east coast compete. We think that is healthy competition. But we compete because we are all willing to make investigations, both in our infrastructure as well as in our partnership with the private sector and with labor,

who service us. We believe that that competition is healthy, but we also are prepared in the Port of New York and New Jersey to commit the approximately $1 billion for the non-Federal share of the channel project that we are seeking in the water resource legislation of 2000, in addition to the $5 to $6 billion that we, in conjunction with our private sector partners will invest in upland infrastructure.

Mr. Chairman, I would like to submit more formal remarks for the record, and I would be happy to answer any questions the committee may have today.

Thank you.

Senator VOINOVICH. Thank you very much. Your remarks will be inserted in the record.

Ms. BORRONE. Thank you.

[The prepared statement of Ms. Borrone follows:]

Senator VOINOVICH. Now I'd like to welcome Barry Palmer, who is the director of the Association for the Development of Inland Navigation in America's Ohio Valley.

Mr. Palmer, I would like to congratulate you and your membership for your willingness to take on your responsibility in paying $0.20 per gallon of diesel fuel so that you can see that the locks and dams on the Ohio River are in appropriate condition. Certainly, that is a core role of the Corps of Engineers and has been, and I apologize to you for the fact that the Federal Government hasn't kept up their part of the bargain with you and that we are 6 or 7 years behind what needs to be done in this area.

I appreciate your being here and look forward to your testimony.

STATEMENT OF BARRY PALMER, EXECUTIVE DIRECTOR, DINAMO

Mr. PALMER. Thank you very much, sir. We've never had that kind of response from someone in your position before. We did agree to accept the additional $0.10 per gallon diesel fuel tax, making $0.20 per gallon. The moneys go into the trust fund to finance, pay for half the cost of these lock and dam modernization projects.

Dinamo was organized 19 years ago with private sector leadership, State government leadership. Former Governor Rhodes was one of the charter members of getting Dinamo started and labor interest for the purpose of working with the Corps of Engineers to expedite the modernization of the lock and dam infrastructure on the Ohio River and its tributaries. You see a map of the region. In the last 19 years, 15 locks and dams, which represented an investment of nearly $5 billion, have been authorized by the Congress, the leadership support of this committee, and all 15 locks and dams are under construction or complete.

You talked about the delays in scheduling. Yes, some of the projects have been delayed in their completion date by as much as 6 years. Particularly, there is a picture of the Olmsted locks and dams down at the end of the Ohio River before it goes into the Mississippi. This is a $1 billion project. That's a December photo. The locks are complete at this site. That project, from the beginning, when I got started on it, until when it is expected to be completed may be 27, 30 years. It needs massive amounts of money to get this project completed in an orderly way. And there are five other lock

and dam projects that are not receiving as much funds as we think are necessary to get the job done.

There are 275 million tons of commodities moving on the Ohio River navigation system that represents a value of $32.8 billion. There are 1,000 manufacturing firms, power plants, terminals, and docks on the Ohio River navigation system, and it represents probably 650,000 jobs that are directly and indirectly affected by that waterborne commerce.

We are here today—I wanted to say of the Olmsted project, for example, you talked about delays in this. The Corps did a study recently, and it was submitted to the Inland Waterway User Board. More than $1.34 billion in transportation savings have already been washed down the Ohio River because of construction schedule slippage. An additional $534 million is on the table. Those are potential future benefits. Those savings could be realized if we could get these projects funded on an orderly, efficient schedule.

Now, we have been studying a lot of these projects under what is called an "Ohio River Mainstem Study" initiated 5 or 6 years ago, which was intended to be an authorization document for short-term needs, as well as a long-range view of projects, and the preliminary findings are that there are eight more lock and dam projects that will need to be authorized in the next decade.

The ones we are here to talk about today are Greenup and Myers. What you see in the yellow and what you see in the red are, in fact, costs that are born by the private sector as they operate on the system and go through those specific locks and dams, and the red particularly are closure costs that are reflected in future years over the 50-year economic design life of these projects. These are the two most important and two of the busiest locks on the Ohio River main stem.

John T. Myers Lock and Dam is one of these projects that is located on the Indiana/Kentucky border near Uniontown—Mount Vernon, Indiana and Uniontown, Kentucky. The other is Greenup, which is on the Ohio/Kentucky border.

Now, Myers was shut, for example, closed down for major maintenance back in 1989 for 45 days, and the additional cost to tow boat operators and shippers because of the closure of that lock was $15 million. So when you look at these closure costs out into the future, they are significant.

Now, what we are asking this committee and urging them to consider and to act on, in fact, is to provide construction authorization for what are six-foot extensions to the auxiliary chambers at both the Greenup and Myer facilities. They probably require a contingent authorization. The division engineer is going to release his report tomorrow. They don't want me to tell you that. They want to tell you that first, but you will get it some time this week. And the final report of the chief should be available certainly before the end of the calendar year.

We are looking at—the reasons for asking for tangentient authorization are two reasons. One, it takes a long time to get these projects under construction and built, but we would like to see this project, these two locks and dams and these extensions, completed by 2008. We have a window of opportunity. If we can build extensions on the auxiliary chambers so that we have twin 1,200-foot

locks, we can avoid having to build a third lock at some point in the future, so this is a more cost-effective way of doing business.

You can see the engineer's notice. Come this month, the first cost at J.T. Myers is $182 million. At Greenup, it is $176 million. They both have very favorable benefit/cost relationships. What we want to do is we've got about 75 million tons of commodities going through Myers, for example, so we want to get these projects on track before the traffic overwhelms us, and then use the auxiliary lock as well as the main lock, and then forcing the Corps to build a third lock. That would be cost prohibitive.

There is money for these projects, as you can see, in this year's budget, so there is support for this stuff, and what we are trying to do is to get down the river to, like we had with the Robert C. Bird Locks and Dams, one of our early champions along with Senator Heinz and Senator Ford, helped get this thing started.

This is the old Gallipolis Lock and Dam down near Gallipolis, Ohio, and now Robert C. Bird Locks and Dams, and that's the way we like to see them all—completed and operational, fully operational.

Thank you for the opportunity to be here this morning and to present our ideas about support for this project.

Senator VOINOVICH. Thank you very much.

[The prepared statement of Mr. Palmer follows:]

Senator VOINOVICH. Mayor Dannel Malloy, the city of Stamford.

STATEMENT OF HON. DANNEL P. MALLOY, MAYOR, CITY OF STAMFORD, CONNECTICUT

Mayor Malloy. Good morning, Chairman Voinovich and members of the subcommittee. I am Dannel Malloy, the mayor of Stamford, Connecticut, and I am pleased to testify today on behalf of the National Association of Local Government Environmental Professionals about the critical role the Army Corps of Engineers has in revitalizing America's brownfields.

Today, I will describe why the Corps of Engineers mission in brownfields is so important to local communities. Second, I will describe the need for the Corps' brownfield assistance in the efforts of places like Stamford and several other communities across America. Third, I wish to commend both the Administration and Senator Chafee for proposing to enhance the Corps' in brownfields revitalization.

By way of background, NALGEP represents local government officials responsible for making local environmental policy and ensuring environmental compliance. NALGEP's membership consists of more than 130 local governments throughout the United States, including many communities in the States represented by the membership of this committee.

The city of Stamford has a diverse population of 110,000 people and is located on Long Island Sound just 35 miles from New York City. While Stamford is an old industrial city, settled in 1641, most of the historic manufacturing companies have left Stamford, leaving behind their contaminated industrial sites, or brownfields.

Stamford has launched two major revitalization initiatives along our waterways, both with the assistance of the Corps of Engineers. Along Stamford's harborfront in the south end of the city, we are

cleaning up long-abandoned brownfields and creating new manufacturing, housing, and recreational areas. The Corps' help is necessary to deal with further environmental assessments, ecosystem restoration, harbor dredging, and other activities which the Corps is well situated for.

Stamford has also launched a major initiative to revitalize the Mill River corridor in a vital mixed-use district surrounding a new linear park along the river which runs through the center of the city. The Mill River initiative is a centerpiece of Stamford's plans to create a vibrant urban center with a high quality of life where citizens will want to live, work, and play. At Mill River, Stamford needs assistance in hydraulics study in order to remedy recurring siltation problems, improve water flow, and reconfigure the flood storage area. The Corps could also play a valuable role in dredging, identifying, and cleaning any environmental contamination and helping to restore the aquatic ecosystem.

My written testimony provides other examples of how the Corps of Engineers is successfully partnering with local communities to clean up and revitalize waterfront brownfields. Specifically mentioned are projects in Ohio, New York, Rhode Island, Missouri, Kansas, Iowa, and California. In fact, we understand that the Corps of Engineers is assisting more than 50 local governments to deal with environmental contamination in the projects along their waterways, and there are a great number of other communities that still need this help. These local examples show how valuable the Corps of Engineers can be in community brownfields revitalization.

I want to stress three reasons that the Corps' brownfields mission is so important. First, there is a great local need for brownfields assistance along our waterways. There are as many as 500,000 brownfields that are draining older localities of vitality, threatening the public health and environment, and thwarting the expansion of local economies, jobs, and tax base. The need for brownfields resource is real and it is large.

Waterway brownfield redevelopment also poses a unique set of challenges for communities. The difficult issues of water quality improvement, ecosystem protection, and restoration, flooding and runoff, toxic contamination, and hydraulic engineering make the Corps' expertise in cleanup along the Nation's waterways particularly important.

Second, brownfields revitalization along waterways is consistent with the Corps' existing environmental mission, activities, and competencies. As I have testified, the Corps has creatively used its existing authorities to support as many as 50 local brownfields projects. This successful track record makes further Corps efforts and a clear legal authority for them appropriate and valuable.

Third, the investment of the Corps' resources in brownfields will yield a high return for American local communities, its citizens, and the environment. Removing the barrier of contamination from our waterfront brownfields can help create jobs, leverage private sector resources, expand the tax base, reverse urban deterioration, protect health and public safety, slow the sprawling of metropolitan regions, and keep our communities livable.

In conclusion, local communities urge this Congress to support a brownfields mission for the Corps of Engineers. NALGEP commends the Administration and Senator Lincoln Chafee for their leadership in proposing legislation that would establish this important environmental mission for the Corps.

Riverfronts, harborfronts, and lakefronts, and many local communities hold the legacy of our industrial heritage, and the contamination left behind by these activities is there and need to be dealt with.

The revitalization of our waterways with commercial, residential, and greenspace development represents the key to the future revitalization of these American communities. Congress should make the Corps part of the team of local, State, and private sector leaders who are revitalizing our Nation's waterfront brownfields.

Thank you.

Senator VOINOVICH. Thank you very much.

[The prepared statement of Mayor Malloy follows:]

Senator VOINOVICH. Mr. Marlowe is president of the American Coastal Coalition, on beach projects.

Mr. Marlowe?

STATEMENT OF HOWARD MARLOWE, PRESIDENT, AMERICAN COASTAL COALITION

Mr. MARLOWE. Thank you very much, Mr. Chairman. I appreciate the invitation to testify extended by you and Senator Baucus.

The American Coastal Coalition is a nationwide advocacy organization for coastal communities whose sole mission is to achieve policies that will promote the economic and environmental interest of those communities. Since our establishment in 1996, our major focus has been on Federal policies that affect beach restoration.

As you know, the Administration in 1995 announced that it would support no new shore protection starts. This committee, in WRDA 1996, adopted section 227, which we refer to as the ''National Shore Protection Act,'' and Senator Lautenberg was the chief sponsor of the National Shore Protection Act as a stand-alone piece of legislation, and, when incorporated into WRDA, it simply required the Administration to recommend shore protection projects for authorization and for funding.

To this day, the Corps has not implemented section 227 because of strong opposition from the White House Office of Management and Budget.

In the last couple of years, Members of Congress and private interest groups spent a good deal of time negotiating with OMB, trying to reverse the Administration's position. The result of those talks was the adoption in WRDA 1999 of a major change in cost-sharing, which increased the share of cost born by non-Federal sponsors in short protection projects.

At the time the Senate Environment and Public Works Committee was considering that change, Dr. Westphal testified before you and responded to your questions that the cost-sharing formula considered by the committee would result in a change in the Administration's no new shore protection projects. Apparently, he was not speaking for the Administration.

The Administration's shore protection policy, if it can be called that, is bad policy. It is bad for the national economy. It is bad for the national environment. Furthermore, we think OMB's dealing with Congress on this subject have been characterized by bad faith.

I want to emphasize a couple of points in our prepared testimony. Beaches are a major component of our national economic and environmental infrastructure. Their impact will be quantified and highlighted when the national shoreline study authorized by WRDA 1999 is completed. The study will provide not only the first physical catalog in 30 years of the beaches of the United States that are eroding, but it will also show the economic and environmental costs of erosion to the Nation.

Obviously, American Coastal Coalition fully supports the funding of the shoreline study; however, we regret that the Administration apparently is using the fact that the study has yet to be undertaken and completed as an excuse not to recommend reauthorization or funding of any new beach restoration projects. It is especially hard to take this excuse with any degree of seriousness, given the fact that the Administration has recommended a paltry $300,000 appropriation for this study. We are delighted by the fact that Senator Lautenberg and other Members of Congress have requested very adequate funding for this project.

Since it is likely that Congress will provide some level of funding, we do hope that this committee will urge the Army Corps of Engineers to begin working with other agencies now to develop a study scope and methodology that will produce useful and credible information for Congress and the public.

I want to focus on something very briefly that has been raised by other witnesses and by members of the committee, section 16, the automatic deauthorization provision.

In theory, it ought to be able to be possible to get from authorization to construction within 7 years. The fact of the matter is that most of the beach nourishment projects that are up for actual construction funds in fiscal year 2001 or likely to be up for fiscal year 2002 were actually authorized in the 1980's. Many beach nourishment projects authorized in the WRDA bills of 1992 and 1996 are not likely to get construction funds until fiscal year 2003 or later.

Corps procedures and the Administration's refusal to budget for nourishment projects have been significant factors in slowing them down in terms of getting under construction.

Every authorized Federal beach nourishment project has an economic life up to 50 years. Over that life, the authorization provides for periodic renourishment. Well, those that perform well, the period between initial construction and their first, second, or subsequent periodic renourishment is going to be longer. It may, indeed, be longer than 5 years.

Now, that good performance will be rewarded with an automatic deauthorization under section 16 of the Administration's proposal. That's one single approval that we don't need from the Feds. Obviously, we hope that you will strike section 16, or not include that provision in your committee bill.

In our prepared testimony, we have discussed several WRDA 2000 policy changes that we recommend. There is one, again, I

would like to highlight, and it is appropriate, given the fact we've had other discussion on the word "recreation."

Recreation is not a four-letter word and, in the case of shore protection, it is not an extension of the Corps' mandate. The fact of the matter is, it is an integral part of the Corps protection mandate.

Basically, in a very summary fashion, we would like to have the legislation enacted. We proposed in our testimony legislative language which would require that the Corps consider recreational benefits equally with storm damage reduction and environmental restoration benefits to determine the benefit/cost ratio of shore protection projects.

Finally, our testimony has listed several shore protection projects, studies, or construction authorizations. We hope that you will include these within WRDA 2000.

Thank you very much for the opportunity to testify. We look forward to any questions that you may have.

Senator VOINOVICH. Thank you very much.

[The prepared statement of Mr. Marlowe follows:]

Senator VOINOVICH. I've asked Senator Chafee to take over presiding this hearing for a few minutes. I will be back.

Senator LAUTENBERG. Thanks very much, Mr. Chairman. I'll try to be brief, which is unusual. I hope that the witnesses' response, which is unusual, will also be brief.

I'll start with Ms. Borrone.

I thank all of you for your testimony. It is a very appealing litany, if I may call it that way, to actually get involved to do the things that we have to to help our communities move along, to get the ground cleaned up, get the water cleaned up in places where it can make a huge difference. The crowding of our country is forcing us to seek ever-more land use opportunities in a sensible, environmentally sound way.

Ms. Borrone, we're looking at trying to deepen our channels, and, very frankly, it was something that Mr. Marlowe said about beach replenishment—you know, all of these projects are fundamentally designed to try and help the economies of those communities, and we don't stand by when there is a flood or a natural disaster, earthquake, volcano, what have you. We don't stand by and say, "OK, that's a local thing." And therefore we can't stand by, in my view, and say to those ports that are naturally deeper, "OK, you come take the business because the standards for building ships have changed substantially and they're deeper and harder to get ships in." So, as a consequence, I think, just as we talked to Mr. Palmer about what you're trying to do in the Ohio Valley there, the same thing, beach replenishment to me is akin to helping farmers in the moment of disaster.

If our economy is built around the use of beaches and clean water, clean ocean water, then we have to appeal to our Federal Government to give us a hand there to try to adjust things so that we can all share in the business.

So when we look at, Ms. Borrone, at the New York Harbor—and I'm glad to see that Mayor Malloy's colleague in activities has joined us.

Senator LIEBERMAN. I was close. Thank you.

Senator LAUTENBERG. Well, I know how devoted you are, Senator Lieberman, to making sure that every resource in this committee goes to Connecticut.

[Laughter.]

Senator LIEBERMAN. Whatever is left over after New Jersey.

Senator LAUTENBERG. The fact is that we have had—we're looking now at depths of 55 feet because newer ships have been build more efficient. Is this a cycle that is going to continue? Are we going to be looking at 60-, 65-foot vessels? I see some of the passenger vessels that they are building are so enormous, they're five, six stories high. Is that what we are in for in the future, because it makes a difference in how we do our planning.

Ms. BORRONE. It certainly does, Senator. Well, as we undertook this analysis, with the help and commitment of the Army Corps of Engineers, we asked that question. I think our answer is, barring some dramatic change in technology, that it is not going to continue to look to deeper and deeper channels. What we are saying is that we are going to perhaps have the opportunity to max out with existing depths and existing beams on vessels well before we have to start looking at new capability and ship design.

We believe, based on what the industry designers are telling us—naval architects and marine engineers—that we could see ships with current depth requirements and beams that would handle 14,000 or 15,000 containers on a vessel. The technology problem is going to be the engine capability and the cost of operating those vessels.

If we start seeing broadening beams, we are going to have problems not just in New York Harbor but in many other harbors, because we haven't designed our channels to handle two vessels of very large beams passing each other. And it's not just this country, it's other countries, as well.

So what we think and the way we looked at this analysis, the channel depths that we are talking about, that 50 foot, which, as you say, is really more than 50 feet to assure safe overdraft and to assure that we—because we will be blasting into rock, have the appropriate rock capability in place—we're talking about approximately 54 feet. We should be able to handle the ships that want to call our harbor.

Also, remember that the largest, the behemoth vessels, are only going to be on certain trade lines because of the volume of cargo flowing between Asia and the U.S. or between Asia and other countries.

So we don't think it is an ever-increasing cycle of deeper and deeper drafts.

Senator LAUTENBERG. Because at some point I think we have to say, "Well, how much can we afford to do, and what is the reasonable navigation opportunity there?" You know, some of these are fairly narrow channels, and if you keep extending the draft then there is a tendency to increase the length, there is a tendency to increase the beam. Before you know it, you'd have to put wheels on this thing and drive it over land.

Then the next question that arises is the share of sharing, the relationship between Federal funding and non-Federal funding,

and the current cost-sharing relationship for channel-deepening projects, the nexus at 45 feet is 50/50.

Now, in your testimony you say that the Port Authority or local support, regional support, is willing to go to $1 billion, if I read correctly. The forecast is for $1,800,000,000. What is the position of the Port Authority on accommodating these newer ship standards and modifying the cost share to allow for 65/35 for projects up to 55 feet?

On one hand, I hear what I think is a serious offer to take even more than half locally. On the other hand, it is being suggested that maybe the Federal Government ought to step up to 65 percent.

Ms. BORRONE. Well, Senator, the current Federal share is really 60/40, meaning 60 percent on the local and 40 percent on the Federal level, because the 50/50 we start with, but we also have another 10 percent responsibility at the end of the project where we reimburse the Federal Government that additional amount. So the Government's position in current law is that we step up and spend 60 percent of our funds.

That's what I said we are prepared to do because it is so urgent that we get this program moving. But we do, as the Port Authority, strongly support the cost-sharing policy change which is under consideration, we hope, by this committee, because we do believe, as I said in my testimony, that the depth we are talking about will be standard depth, which was the circumstance when we were dealing with 45 feet as an industry standard a decade-and-a-half ago.

So we would hope that the committee would seriously consider the opportunity to adjust the cost-sharing formula in this legislative round.

Senator LAUTENBERG. To 60——

Ms. BORRONE. To 65/35.

Senator LAUTENBERG. To 65/35?

Ms. BORRONE. Right.

Senator LAUTENBERG. So 65 percent——

Ms. BORRONE. Federal.

Senator LAUTENBERG [continuing]. Being from——

Ms. BORRONE. The Federal Government.

Senator LAUTENBERG. Federal Government. I just wanted to be sure, because let there not be any confusion that we want to make it easier for the Federal Government.

I thank you.

Ms. BORRONE. Thank you, sir.

Senator LAUTENBERG. I thank the Senator from Rhode Island for his interest, I must say, to carry on in the Chafee tradition, legacy of interest in such matters as the very good, positive contribution to the things that we are doing. We're glad to see you.

Senator CHAFEE [ASSUMING CHAIR]. Thank you very much.

Senator Lieberman?

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator LIEBERMAN. Thanks, Senator Chafee, and thanks to everyone on the panel.

I'd offer a special welcome to my home town mayor. I left, but I didn't go far, and my mother is still there, and she is a fervent supporter of Mayor Malloy.

I regret that I was at an Armed Services Committee meeting that kept me from being here.

I don't want to delay the hearing. I have a statement that I would ask, Mr. Chairman, be entered into the record.

Senator CHAFEE. Without objection.

[The prepared statement of Senator Lieberman follows:]

Senator LIEBERMAN. I took a look at Mayor Malloy's testimony and I have been informed by my staff that he testified well to it.

We have had experience in Stamford now with the very constructive and unique role, a great advantage, sort of value-added over what might have come from a private engineering firm. First, the city 2 or 3 years ago was designated as one of the lead cities in brownfields initiative. I think 16 were chosen around the country. But then there are two major projects that I know, because of all the time I go to Stamford to visit my mother. You understand this.

Mayor Malloy. I do.

Senator LIEBERMAN. Yes. And I know, from talking and working on it with Mayor Malloy, the critical role the Corps is playing in both of those projects.

I'm sure he said it better than I could. I want to just welcome him, thank him for taking the time to come down and testify and thank him for his leadership of a city that is really doing very well now.

Mayor Malloy. Thank you, Senator. I just want to thank you for being here. If I had known you were going to be here, I would have spoken slower.

[Laughter.]

Senator LIEBERMAN. Thank you.

Thanks, The CHAIRMAN.

Senator CHAFEE. I don't have any questions. The only comment I would make is that these are worthy projects, from the days when you could walk across the backs of salmon to seeing very few in a whole day along the river—80 million people, according to your testimony, are served within 100 miles of the port.

One interesting fact—New Jersey is more densely populated than India.

Senator LIEBERMAN. Really?

Senator CHAFEE. Look it up.

Senator LIEBERMAN. I'm going to do that.

I'll give you the other side of this. I was at a meeting with Senator Burns of Montana, and he was talking about how little populated Montana is, and he said, in true Brensian fashion, "In Montana, there's a lot of dirt between light bulbs."

[Laughter.]

Senator LIEBERMAN. It only makes sense that we provide all those people with adequate transportation for their goods. Of course, the Ohio River and all the produce that travels on that waterway, and the good work that is being done at Stamford, what an opportunity to realize a city's potential, a city that has seen the faces of history come and go and now great potential.

And the beaches—my only comment on that would be the power of the ocean just can't be under-estimated. I know in Rhode Island we restore some beaches, and just the power of the ocean can undo so quickly what the Corps or anybody else can do, so I do have some reservations on putting money into beach restoration.

Mr. MARLOWE. I'd be happy to talk with you about that one, Senator.

Senator CHAFEE. Thank you very much.

In the absence of Senator Voinovich, I conclude the hearing. Thank you.

[Whereupon, at 12:07 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

STATEMENT OF HON. DANIEL PATRICK MOYNIHAN, U.S. SENATOR FROM THE STATE OF NEW YORK

Mr. Chairman, I appreciate your holding this hearing to discuss the Administration's proposal for the Water Resources Development Act of 2000. I am particularly interested in discussing the New York/New Jersey Harbor Navigation Study, which was completed and signed by Lieutenant General Joseph N. Ballard on May 2, 2000. I am pleased that the project has been included in today's hearing and particularly look forward to receiving the testimony of Lillian Barrone, Director of Port Commerce for the Port Authority of New York and New Jersey.

The Chief's Report for the New York/New Jersey Harbor Navigation Study recommends deepening the entrance channel to 53 feet, and all other major channels in the Port to a depth of 50 feet. This report represents 3 years of comprehensive study, authorized in WRDA 96, on the navigation needs of the Port of New York and New Jersey. I support the report in its entirety.

In 1791, Alexander Hamilton wrote of the efficiencies to be gained by the involvement of the Federal Government in the development of waterways for commerce in his "Report on Manufactures." Throughout the 1800's, support for Federal involvement in navigation and commerce solidified. In 1899, Congress passed the River and Harbor Act, giving regulatory authority to the Army Corps of Engineers for any construction within navigable waters of the United States. Mr. Chairman, the New York/ New Jersey Harbor project represents the essence of this mission.

The Port of New York and New Jersey is the third largest port in North America and the top export port in the country. It is a vital economic engine. As trade continues to expand, we must be prepared to make serious investments in our nation's infrastructure to ensure our ability to be competitive internationally. Authorization of the New York/ New Jersey Harbor project in its entirety is paramount to the continued economic vitality of the Port, the states of New York and New Jersey, the entire northeast region, and indeed, the nation. I look forward to working with my colleagues in developing the Water Resources Development Act of 2000.

STATEMENT OF DR. JOSEPH W. WESTPHAL, ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS), DEPARTMENT OF THE ARMY

Introduction

Mr. Chairman and Members of the Subcommittee, I am Joseph Westphal, Assistant Secretary of the Army for Civil Works. Accompanying me today is Mr. Michael Davis, the Army's Deputy Assistant Secretary for Policy and Legislation, and MG Hans A. Van Winkle, the Army Corps of Engineers' Deputy Commander for Civil Works. It is an honor to be here today, and to provide you with information on the Army's proposal for a Water Resources Development Act (WRDA) of 2000. We appreciate the opportunity to work with your Subcommittee and the Congress on this important legislative initiative.

For over two centuries, the U.S. Army Corps of Engineers has been a great asset to our Nation. Since its founding in 1775, the Corps of Engineers has provided engineering support to the military, developed our nation's water resources, and restored and protected our environment. The Corps has improved the quality of our life by contributing to making America more prosperous, safe, and secure. As we begin the new century, the Corps must be flexible and evolve if it is to continue to make important contributions to the Nation and respond to today's problems. We

envision that the Corps will continue in its longstanding and exemplary role as a great problem solver for the Nation.

Historically, the Nation's rich and abundant water and related land resources provided the foundation for our successful development and rapid achievement of preeminence within the international community. Our Nation's waters and waterways have been focal points for economic and social development, and the Army's Civil Works program has made significant contributions to this development.

Under this Administration, there has been intense interest in finding sustainable ways to strengthen our Nation's economy while protecting and restoring our unique water and related land resources for the benefit of future generations. I believe the Army's Civil Works program has a significant role to play in meeting these objectives. There is no question that our natural resources have been affected, often in unintended ways, by our country's tremendous growth, unparalleled prosperity, and urban and rural development. Pursuant to the Water Resources Development Act of 1986, the Army Civil Works program began to change in response to the many new water resources challenges facing this Nation. The programs and policies that I will talk about today are designed to enable the Army Corps Civil Works program to continue the tradition of contributing to our economic growth, our National security, and the restoration and protection of our Nation's environment.

Importance of Water Resources Development

The Administration's Army Civil Works program reflects its commitment to justified and environmentally acceptable water resources development. Our program provides a sound investment in our Nation's security, economic future, and environmental stability. Communities across the country rely on water resources projects to reduce flood damages, compete more efficiently in world trade, provide needed water and power, and protect and restore our rich environmental resources.

As you are well aware, there are many pressing needs for water resources development in this country. We must work together to define an appropriate Federal role in addressing these problems in the full light of our fiscal capabilities and constraints, and economic and environmental requirements. I suggest that we utilize the following principles as we formulate a Water Resources Development Act for 2000:

- Technically Sound Projects. Water resources investment decisions must be made based on the best technical and policy evaluations that consider all economic and environmental consequences. In light of constrained Federal dollars we must ensure, before a project is authorized for construction, that it has completed a sound planning process, has passed a full Agency and Administration review, and is fully in accord with the Federal laws and policies established to protect the environment.
- Central Importance of Cost Sharing. At the heart of the Water Resources Development Act of 1986 were landmark beneficiary pay reforms, which included cost sharing. As a result of this change in the way the Corps does business, local sponsors, through funding and use of their expertise, have become active participants in the formulation, evaluation, and financing of projects. The willingness of non-Federal interests to participate in cost-share studies and projects often also serves as a critical market test of a project's merits. Overall, we have found it an eminently successful policy.
- Fiscal Responsibility. The Nation's water resources infrastructure must be planned, constructed, operated, maintained, and improved to meet future needs. However, this must be done in consonance with other national priorities and a balanced budget. We should never create false hope by authorizing projects that we cannot reasonably expect to fund or complete within a reasonable period of time. In light of the large backlog of ongoing Corps construction projects, and other authorized projects awaiting construction, we must limit the authorization of new studies, projects and programs and give priority to completion of ongoing construction projects. This will allow us to move toward a more sustainable long-term construction program and more timely project delivery to non-Federal sponsors.

Army Civil Works Legislative Program for 2000

The centerpiece for the Administration's legislative program for 2000 is the authorization of the Comprehensive Everglades Restoration Plan to restore America's Everglades. We have previously provided detailed testimony and briefings on this high priority project and will not elaborate further in this statement. Instead, I will focus on the non-Everglades provisions in our WRDA 2000 proposal.

Our WRDA 2000 proposal includes several provisions which, if enacted, will aid in the restoration of our natural environment. There are provisions aimed at more effectively meeting the needs of tribal and low-income communities. Finally, there

are a number of provisions that will assist us in the management of existing Corps programs. I will discuss each of these areas in more detail below.

Provisions to Assist in Environmental Restoration and Planning

• Puget Sound and Adjacent Waters. Puget Sound and adjacent waters encompass more than 15,000 square miles in northwest Washington, including all waters in the Puget Sound drainage basin. Significant amounts of wetland, estuary, and river and stream habitats have been degraded or destroyed as a result of Federal, State, and local actions, including Federal navigation projects, agricultural and forest activities, and urbanization. Improving the health of this resource area is critical to Tribes, the State, and the Nation at large because of its abundant fisheries, and habitats used by migrating waterfowl. Because of this great need, we have proposed legislation that will authorize the Army Corps of Engineers to undertake critical environmental restoration projects in the Puget Sound watershed. Projects would be implemented by the Corps with 65 percent Federal and 35 percent non-Federal cost sharing. The maximum Corps funding of any one project would be limited to $2.5 million, with a total Corps program limit of $10 million. Projects would be selected with the concurrence of the Secretaries of the Interior and Commerce and in consultation with appropriate Federal, Tribal, State, and local agencies, and would provide immediate and substantial restoration, preservation, and ecosystem protection benefits.

• CALFED Bay Delta Program Assistance. One lesson we have learned from our work in the Everglades is how important it is to be able to look at an entire ecosystem or watershed and evaluate comprehensively a broader array of water and related land resources problems and opportunities. The CALFED Bay Delta Program, initiated in 1995, represents an important collaboration among Federal and California State agencies and leading urban, agricultural, and environmental interests to address and resolve environmental and water management problems associated with the Bay-Delta system in central California. The Bay-Delta system is formed where the two foremost rivers of California's Central Valley meet. These rivers—the Sacramento and the San Joaquin—provide drinking water for 22 million people, and supply irrigation water for more than 4 million acres of some of the world's most productive farmland. It is the largest wetland habitat and estuary in the American West, and is a critical part of the Pacific flyway for migrating birds. The CALFED mission is to develop a long-term comprehensive plan that will improve the ecological health of the Bay-Delta system and improve water management for beneficial uses.

We have proposed that the Secretary be authorized to participate in all CALFED planning and management activities, consistent with Public Law 102–575, and to integrate its activities in the San Joaquin and Sacramento River basins with the long-term goals of the CALFED Bay Delta Program. Currently, Army Corps of Engineers participation can be limited because the Corps in many instances must rely on project-specific authorizations that do not include participation in inter-agency, bay-wide planning and management activities. Our proposal will provide the authority for the Secretary to request funds for the Corps to participate in the CALFED Bay Delta Program, and to use funds provided by others to carry out ecosystem restoration projects and activities associated with the CALFED Bay Delta Program. The authorization would be to authorize the appropriation of $5 million in funds over a 4-year period starting in fiscal year 2002.

• Brownfields Revitalization Program. For several years, the Corps has been assisting, predominantly on a reimbursable basis, the Nation's efforts to restore abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by environmental contamination (i.e., Brownfields). We propose that the Army Corps of Engineers be authorized to establish and carry out a program to provide assistance to non-Federal interests in the clean-up and restoration of Brownfields where such clean-up and restoration will directly contribute to improving the quality, conservation, and sustainable use of waterways and watersheds. The Corps would use this authority to perform site characterizations, planning, design, and construction of projects to improve the quality, conservation, and sustainable use of streams, rivers, lakes, wetlands, and floodplains. Such activities in combination with the Corps' existing environmental restoration and protection authorities will enable the corps to participate more extensively in the overall Federal effort to revitalize Brownfield areas. The provision requires consultation with the Environmental Protection Agency and other appropriate agencies to ensure that Army Civil Works activities are integrated fully with the activities of others. Our proposal also includes language in Section 5(d) to clarify that this new authority would not modify existing law or agency authorities over Brownfields. Studies conducted under this authority would be in accord with normal study cost sharing,

and the non-Federal share of projects would be 50 percent. Non-Federal interest would provide the lands, easements, rights-of-way, and relocations; hold and save the Federal Government from claims and damages; and operate and maintain any project implemented under this authority. The legislation would authorize the Army Corps of Engineers to engage in these activities over a 4-year period beginning in fiscal year 2002, with a programmatic appropriation limit of $25,000,000 annually, for such studies and projects nationwide. There would be a $5,000,000 one-time Army Civil Works funding limit at any single site. In addition, the legislation calls for a report to be prepared evaluating the Corps' performance under this Brownfields Restoration Program, and for that report to be submitted to the Congress on findings and recommendations on the program by December 31, 2005.

- Watershed and River Basin Assessments. At a conceptual level, addressing water resources issues on a watershed scale is generally embraced as the most appropriate approach. In practice, however, agencies too often continue to focus on their parochial interests and address problems on a project-by-project basis. In many cases, this has resulted in ineffective solutions and inefficiencies. In this regard, we have included a provision in our WRDA 2000 to amend Section 729 of the Water Resources Development Act of 1986. This provision will enhance the ability of the Army Corps of Engineers to help address complex water resource problems that include large geographic areas across multiple governmental jurisdictions. It would also enhance the ability of the Corps to work efficiently and effectively in a watershed environment. Such assessments would be conducted in cooperation with other Federal, Tribal, State, interstate, and local governmental entities.

The legislation would increase the total authorized appropriations limit for such assessments from the current $5,000,000 to $15,000,000, and add a non-Federal cost sharing requirement. The non-Federal share of the cost of such assessments would be 25 percent. The assessments would consider a broad variety of water resources needs tailored to the specific situation in a river basin or watershed. To the extent practicable, the assessments will consider and enhance those assessments already conducted by other Federal, State, and interstate agencies.

Provisions for Tribal and Low-Income Communities

- *Tribal Partnership Program.* The proposed Tribal Partnership Program would enhance our ability to work with federally recognized Tribal governments, including Alaskan Natives, to determine the feasibility of potential projects for flood damage reduction, environmental restoration and protection, and cultural and natural resource management. The legislation acknowledges the unique relationship with Tribal governments, and authorizes the Secretary to consider traditional cultural knowledge and values when formulating and recommending projects to Congress for authorization, and unique Tribal capabilities during project development. We would coordinate with tribes and with the Department of the Interior and other Federal agencies to identify potential projects and to design and conduct feasibility studies, and would seek to avoid duplications of effort and to explore ways to integrate our resources with the activities of the affected agencies. The legislation would authorize the Army Corps of Engineers to engage in these activities over a 5-year period beginning in fiscal year 2002, with a programmatic appropriation limit of $5,000,000 annually for such studies and projects.

In addition, there will be a $1,000,000 one-time Army Civil Works funding limit for any one tribe. In addition, we have included a provision for the Secretary to develop ability-to-pay procedures to assist low income and economically disadvantaged communities in funding studies and projects conducted under this authority.

- *Ability to Pay.* We are proposing that the ability to pay provisions of Section 103(m) of the Water Resources Development Act of 1986 be further amended so that it would apply to the construction of environmental protection and restoration projects, and to feasibility studies for flood damage reduction and environmental restoration projects. We also believe that additional criteria beyond those provided under current law must be considered. For example, we have included language in our proposal to account for the non-Federal sponsor's financial ability to carry out its cost-sharing responsibilities, and to account for the additional financial assistance that may be available from other Federal agencies or from the State or States in which the project is located.
- Transfer of Project Lands. Our WRDA 2000 includes a proposal to authorize the Army Corps of Engineers to conduct a feasibility study for the transfer to Indian Tribes, from whom they were taken, lands that the Army Corps of Engineers acquired under the Pick-Sloan Missouri River Basin Program. The study to transfer such lands would be conducted in cooperation with the Secretary of the Interior and with the States of South Dakota, North Dakota, Nebraska and other affected interests, and affected Indian Tribes. The Corps of Engineers would conduct economic,

environmental, cultural resource, hazardous waste, and other surveys and evaluations, and comply with applicable environmental and historic preservation laws.

Provisions To Assist in the Management of Existing Programs

- *Recreation Programs.* In my Fiscal Year 2001 budget request for the Army Civil Works program, I announced a new initiative to modernize facilities at key recreation areas currently operated and maintained by the Army Corps of Engineers. The Corps manages 537 Federal lakes (4,340 recreation areas) and administers approximately 11.7 million acres of land and water in 43 States. These projects host 377 million visitors annually. In support of the recreation modernization initiative, I have developed two legislative provisions. First, I am asking for the authority to implement a program to reduce vandalism and destruction of property at water resources projects under the jurisdiction of the Army. Second, I am asking that the Army be given explicit statutory authority to participate in, and help fund, the state-of-the-art National Recreation Reservation Service (NRRS) developed by the U.S. Forest Service. The NRRS has been very successful in providing the public with a one-stop-shop reservation service for recreation opportunities. More than 600,000 Internet reservations were made during the 1999 recreation season.
- *Project Deauthorizations.* The Army Corps of Engineers has many authorized projects that have not been completed, and many that will never be constructed, all of which are contributing to the growing backlog of Civil Works projects. Currently, there is a construction backlog of about $46 billion. This includes all authorized projects, whether or not they have received funding. The size of the construction backlog does not include the many known projects still in the study or review stage that are awaiting authorization. Sufficient funding is simply not available to implement all of these projects in a timely way. To take a small, but important step, to remedy this situation, we propose to modify the current criteria for deauthorizing projects. The proposal identifies a reasonable time period after which a project should be under construction. Where this does not occur, and Congress has been given ample notice but not reauthorized the project, we believe that the project should be "taken off the books" automatically by deauthorization.
- *Flood Damage Reduction Program.* There are two provisions aimed at improving the flood damage reduction program. First, there is a measure to change the cost sharing for structural flood damage reduction projects to 50 percent Federal and 50 percent non-Federal. The cost sharing for non-structural project would remain at 65 percent Federal and 35 percent non-Federal. We believe that this increase in the local cost-share is needed to provide a truer "market test" for our structural flood damage reduction projects. Within the Corps' budget, this change would free up Federal funds for other projects and programs and would provide a stronger incentive to communities and to the Corps to consider non-structural flood damage reduction alternatives. Our recommended revisions to Section 103(m) of the Water Resources Development Act 1986 (Ability-to-Pay), discussed above, would complement this proposal. Together, these two proposals would ensure that needed flood damage reduction projects can go forward in all communities, regardless of their current level of prosperity.

Second, we propose to strengthen the flood plain management requirements of Section 402 of the Water Resources Development Act of 1986, to require non-Federal interests to take measures to preserve the level of flood protection that the projects are intended to provide when they are constructed.

Provisions for Project Authorizations

Since the last Water Resources Development Act, the Army Corps of Engineers has submitted only one project to me for authorization. On May 15, 2000, I received the Chief of Engineers recommendation on the New York and New Jersey Harbor Navigation Project. My office will now review this proposal, and the Administration will now be able to consider the project for authorization. I expect to be able to submit my recommendation on this important project in time for Congress to consider it for authorization in WRDA 2000. In addition, the Army Corps of Engineers has certain other projects that are in the final stages of its planning process. As these projects are submitted to me, we will review them and forward them to the Congress with the Administration's recommendation.

In regard to potential project authorizations in WRDA 2000, I strongly urge the Committee to authorize only those projects that have completed executive branch review. We believe this will improve our ability to construct projects that will benefit the Nation.

Roughly three-quarters of the significant new project in last year's WRDA 1999, and many of its project modifications, were still in the planning stage or undergoing review when Congress authorized them. Many of these projects have not yet com-

pleted the review required for proposed Federal water resources projects under Executive Order 12322. Until they have done so, neither the Executive branch nor the Congress is likely to know which of these project will raise significant concerns regarding their scope, economic and technical feasibility, environmental acceptability, or the ability of local sponsors to provide the required cost-share.

Harbor Services Fund and User Fee

Last year, the Administration transmitted to Congress its Harbor Services Fund and User Fee proposal to establish a new mechanism for financing development, operation and maintenance of the Nation's ports and harbors. The new Fund and user fee would replace the Harbor Maintenance Trust Fund, and the Harbor Maintenance Tax, a portion of which was found unconstitutional and has been the subject to questions raised by U.S. trading partners regarding claims that it violates the General Agreement on Tariffs and Trade. This fee would collect about the same total amount of revenue as would have been collected under the Harbor Maintenance Tax prior to the Supreme Count's decision. Enactment of the proposed new fund and user fee would provide a much needed, stable, long-term source of financing to enable commercial harbor and channel work to proceed on optimal schedules. I urge prompt congressional action on this important proposal.

Conclusion

Mr. Chairman, this concludes my testimony. I stand ready to work with you and your Subcommittee in developing this important legislation. We would be pleased to answer any questions you or the Subcommittee may have..

RESPONSES BY DR. JOSEPH WESTPHAL TO ADDITIONAL QUESTIONS FROM SENATOR SMITH

Question 1. Why do you believe that the new deauthorization process will be an improvement upon the way projects currently are authorized?

Response. The proposed changes should expedite the deauthorization of authorized projects and separable elements of projects that have not been and are not likely to be funded for construction. The proposal introduces new criteria and schedules that should reduce the backlog of inactive and deferred construction projects over a shorter period of time.

Question 2. Your deauthorization provision, as written, would not apply until 3 years after the date of enactment. Why do you propose deferring the implementation of this new process?

Response. The proposal establishes two separate timetables for deauthorization. Section 16(a) applies to "projects never under construction" and section 16(b) to "projects where construction has been suspended." Under section 16(a) projects meeting the deauthorization criteria would be identified after 4 years and deauthorized after seven. Under section 16(b), the timing is 2 years and 5 years. Projects identified for deauthorization under both timetables are reported to Congress annually. Note the 3-year wedge between identification and deauthorization. To initiate this wedge upon enactment would require a 3-year deferral on Reauthorizations.

Question 3. As Senator Baucus mentioned at the hearing, the Corps provided the Committee with a list of how many active, inactive, and deferred projects are in the $46 billion backlog. $8 billion of these projects are listed as inactive or deferred. Are there additional projects in the active category that would be eligible for Reauthorization in this cycle if the Administration's proposal were enacted?

Response. Under the Administration's proposal, there could be projects in the active category that are Reauthorized. The proposal establishes new criteria and timetables for the Reauthorization of all authorized projects, notwithstanding their classification as active, inactive or deferred. If an "active" project were to meet the criteria, then it would be identified and Reauthorized. For example, an "active" project in the design or land-acquisition phase could still be Reauthorized because, in most cases, construction funds for "physical work" must be obligated to prevent Reauthorization.

Question 4. Would projects in the Puget Sound area still be eligible for Section 206 authority if Section 19 were enacted?

Response. Yes.

Question 5. What would Section 19 accomplish that is beyond the scope of Section 206 authority?

Response. Section 19 would allow for a regional prioritization of environmental restoration projects, using criteria that are unique to the Puget Sound area. The needs for environmental restoration in the Puget Sound Watershed far exceeds the

parameters of the 206 program, which also must serve the needs of the rest of the nation. Section 19 will permit a comprehensive approach in addressing ecosystem and habitat problems throughout the Puget Sound basin. It allows for a program to address critical ecosystem restoration needs for environmental resources that have national importance, such as Pacific Northwest salmon. Project prioritization will occur at a local level, to ensure ecosystem restoration needs of the region are best being met. The new authority will provide additional Federal funding to match state, local, tribal, and private sources, allowing more high priority projects to be completed.

Question 6. How do you expect to fund these regional programmatic authorities? these authorities compete with the already existing national authorities for funding?

Response. This authority will be funded using the annual budget request process and will be consistent with the project authorization. It is envisioned that the budget requests will be made based on the merits of the restoration projects being considered for construction.

Question 7. Describe the historic involvement of the Army Corps in the Puget Sound region.

Response. The Corps of Engineers has been constructing civil works projects in the Puget Sound region since the early 1900's. Authorized projects in the Puget Sound region include multiple flood control, shoreline and riverbank erosion control, debris clearing and snagging operation, irrigation, and navigation projects. In recent years, the focus of Corps activities has been upon environmental restoration. Since the late 1980's, Seattle District has undertaken several Continuing Authority Projects, constructing seven Section 1135 projects, with another five to be completed within the next few years. There are five Section 206 projects underway, with a backlog of six additional projects awaiting funding to be initiated. In addition, Seattle District has five General Investigation Ecosystem Restoration projects underway, with two ready for WRDA 2000 authorization.

Question 8. Over the last five fiscal years, how much of the Section 206 funding has been directed to the Puget Sound region?

Response. Since the 206 program was authorized in 1996, the Seattle District has expended $900,000 in studies, which will lead to approximately $4,800,000 in restoration construction.

Question 9. How would the S.729 watershed assessments differ from the traditional reconnaissance and feasibility studies?

Response. Traditional reconnaissance and feasibility studies have typically focused on narrower problems and solutions. The 729 assessments would better enable the Corps to address complex water resource problems that include large geographic areas, with multiple governmental jurisdictions, having multiple potential sponsors and involving significant interest by other Federal agencies.

Question 10. In the Administration's fiscal year 2001 budget proposal, four such watershed assessments are requested. Have other assessments been conducted under Section 729 authority and if so, what were the results and what was done with this information?

Response. The fiscal year 2001 Budget identifies four comprehensive river basin planning studies. Two of these studies, the Rio Grande River Basin and the White River Basin, Arkansas would utilize the authority of Section 729. The total Federal share of each of these studies is $2 million. Previously, Section 729 authority was used to accomplish the National Study of Water Management During Drought, completed in 1995. This study concluded that more skillful and integrated water management is needed and developed a new concept for Drought Preparedness Studies.

Question 11. What was the impetus behind requesting a costshare change for Section 729 assessments?

Response. The request for a change in the costshare recognizes the importance of leveraging Corps dollars and achieves a level of comparability with other Corps programs that address similar types of problems.

Question 12. In what ways is the New York-New Jersey Harbor Deepening project of national significance?

Response. The New York & New Jersey Harbor Deepening project serves the Port of New York and New Jersey, which is the third largest container port in the nation and the largest on the East Coast. In 1997, the Port handled over 2.3 million TEU's (20-foot equivalents) of containerized cargo. This increased to approximately 2.4 million in 1999. The Corps's economic project in the feasibility report expects a further increase to 19 million in the year 2060. Approximately 70 percent of this cargo was either destined for or originated in the 31 county metropolitan tri-state area that contains 40 percent of the nation's population. The remaining cargo is either des-

tined for or originated in a 17 state area that extends from New York to Missouri and from Maryland to Maine.

In addition, the New York & New Jersey Harbor Deepening Project is of national significance because of its contribution of more than $238 million in annual national economic development benefits. These benefits are in the form of reduced costs for the waterborne transportation of containerized cargo. Reducing waterborne transportation cost results in the consumer paying less for the products that they demand, and producers paying less for imported inputs, which increases the demand for U.S. labor. Both of these effects contribute to the overall economic welfare of the Nation.

Question 13. If the New York-New Jersey Harbor Deepening Project were authorized, what would be the breakdown, annually, of the Federal appropriations over the life of the project (e.g. how much in fiscal years 2002, 2003, 2004, etc.)?

Response. Based on the construction schedule presented in the feasibility report, construction of the project would begin in fiscal year 2003 and continue until fiscal year 2016. The schedule of Federal appropriations for the construction of the project is below. The funds identified in fiscal year 2017 through 2021 are for the completion of environmental monitoring of the project effects. The difference between the recommended authorized amount and the amount shown is the cost of completing the Preconstruction Engineering and Design Phase (Gl funded). It is further noted that the local non-Federal sponsor, the Port Authority of New York and New Jersey, has expressed a desire to have the channels leading to its Newark Bay Facilities be completed by 2009 in order to meet its commitment to Maersk-SeaLand. The District continues to examine the schedule and will determine during the Preconstruction Engineering and Design Phase whether this requirement is viable.

Year	Federal Funds
2003	$66,000,000
2004	$70,000,000
2005	$73,000,000
2006	$69,000,000
2007	$70,000,000
2008	$68,000,000
2009	$59,000,000
2010	$61,000,000
2011	$57,000,000
2012	$58,000,000
2013	$31,000,000
2014	$11,000,000
2015	$18,000,000
2016	$12,000,000
2017	$177,000
2018	$101,000
2019	$101,000
2020	$101,000
2021	$101,000
Total	$723,581,000

Question 14. Are there currently harbor-deepening authorizations that have not been executed for channels that comprise the New York-New Jersey Harbor Deepening project. If so, and if this project were authorized, would these authorizations be obsolete, so to speak, could they be Reauthorized? What would be the impact on the backlog?

Response. Congress authorized the Arthur Kill Channel-Howland Hook Marine Terminal (to 41 feet below mean low water) and the New York and New Jersey Channels-Port Jersey Channel (to 41 feet below mean low water). Both of these projects are for high priority deep draft navigation purposes with strong benefit-to-cost ratios. As demonstrated in the their Limited Reevaluation and Chiefs of Engineers Reports, there continues to be a need for theses two channels to be constructed now, which has resulted in them being included in the President's Budget for fiscal year 2001. In recognition of the future overlapping of these three projects, the District Engineer recommended that construction of these two projects be initiated and that, upon authorization of the New York & New Jersey Harbor project, the authorities and appropriations be combined and construction all the rec-

ommended channel projects to 50 feet directly can proceed. The Chief of Engineers concurred with these findings. Initiating these two projects now will ensure that the overall deepening to 50-feet is completed as soon as possible. As such, the Corps does not recommend Reauthorization for these channels at this time.

Response by Dr. Joseph Westphal to Additional Question from Senator Voinovich

Question. The Administration is proposing a programmatic authority for critical restoration projects in the Puget Sound region with a Federal share of up to $2.5 million. There are Corps national programmatic authorities for environmental restoration under Section 1135 of WRDA 86 and Section 206 of WRDA 96. The Puget Sound restoration projects would be potentially eligible for implementation under these national environmental restoration authorities. What is the justification for creating a special authority for the Puget Sound Region? Won't every region of the country want their own special pot of money? Wouldn't it be better to increase the appropriation limits on the national authorities which are available to all regions of the country?

Response. The National Marine Fisheries Service recently added several State of Washington populations of salmon and steelhead in Washington to the endangered species list, marking the first time Federal protection has been extended to salmon found in streams in heavily populated areas of the Pacific Northwest, including the Seattle metropolitan area. The salmon is a species of national significance, and its demise would have untold social, economic, and environmental impacts. Whereas the existing authorities have been quite effective for implementing restoration projects on a case by case basis, the needs for restoration work in the Puget Sound Basin far exceeds the parameters of the Section 206 program, both in terms of comprehensiveness and in funding availability. This new authority will address the specific need to restore resources of national importance by ensuring an ecosystem approach to the evaluation of habitat problems in the entire basin, bringing wide-scale comprehensive restoration throughout the Puget Sound. The new authority will provide additional Federal funding to match state, local, tribal, and private sources, allowing more high priority projects to be completed.

RESPONSES BY DR. JOSEPH WESTPHAL TO ADDITIONAL QUESTIONS FROM SENATOR BAUCUS

Question 1. Please provide specific information on the amount (e.g., number of acres) of mitigation the Corps has been legally required (e.g., under Record of Decisions, Final Environmental Impact Statements, Memoranda of Understandings, or Project Cooperation Agreements) to perform over the last 10 years.

Response. To respond to this question, a survey was made of all our field offices. The results of this survey revealed that 440,217 acres of mitigation have been required.

Question 2. What amount (e.g., number of acres) of this mitigation has been implemented over this Period. What amount has been completed?

Response. The survey indicates that of the 440,217 acres required, 263,478 acres have been acquired to the present time. The problem with compiling this information was that there are numerous ongoing projects where required mitigation acres are still being acquired, projects where mitigation was accomplished on a combination of Federal and non-Federal previously owned lands, lands purchased for other purposes were used to satisfy mitigation requirements, etc. In short, there is no direct correlation between the summary of acres required and acres acquired that can be used for determining amount of mitigation that has been completed. In many cases one would have to look at the individual project mitigation plan and execution of that plan to determine amount completed. Similarly the cost to acquire the mitigation acres corresponds only to the acres acquired and does not reflect the total cost of mitigation accomplished.

Question 3. What amount of mitigation completed over the past 10 years has been demonstrated through monitoring to provide the benefits (including habitat value and structure) predicted in Record of Decisions, Final Environmental Impact Statements, Memoranda of Understandings, or Project Cooperation Agreements?

Response. The amount of mitigation completed over the past 10 years that has been demonstrated through monitoring to provide predicted benefits also varied from project to project based upon whether or not monitoring was included in the mitigation plan. The decision to include or not include monitoring is dependent upon the magnitude of the project and the degree of risk and uncertainty with the probable success of the mitigation. Therefore, no attempt has been made to summarize the relative degree of success each project mitigation plan achieved.

AFFADAVITS OF STAFF OF THE U.S. ARMY CORPS OF ENGINEERS PROVIDED TO SENATOR VOINOVICH, CHAIRMAN, SUBCOMMITTEE ON TRANSPORTATION AND INFRASTRUTURE

DOCUMENT REQUEST

1. Letters of April 17, 1998, from MG Anderson to BG Van Winkle.
2. All internal Corps communications in whatever form dealing with the substantive and procedural status of the UMRS between January 1, 1998, and April 1, 2000.
3. Principles and Guidelines for federal water resources agencies.
4. National Academy of Sciences study of Corps' planning process.
5. Instructions given to Dudley Hanson for the persons conducting the in process reviews, if extant in writing.
6. Statement made on September 23, 1998, to review group, if extant in writing.
7. All communications received from interest groups between January 1, 1998, and December 31, 1998, concerning the merits of economic models and assumptions in the UMRS.
8. All responses sent by the Corps to such groups during the same period.
9. All written comments received by the Corps from the Department of Agriculture during the same period.
10. All responses sent to the Department of Agriculture by the Corps during the same period.
11. The results of the in progress reviews with respect to the relative merits of the economic models employed for the UMRS.
12. Guidance from MG Fuhrman relative to the in progress reviews, in whatever form extant.
13. Any notes taken by Dudley Hanson with respect to such guidance, either concurrently or later.
14. Preliminary economic analyses for reliability studies.
15. Draft reports of June 1998 and April 1999.
16. Engineering work group comments on April 1999 report.
17. Interim Revised Lock Extension Design Concept Report of March 1998.
18. Additional preliminary economic analysis of that Report, and reevaluation done in response thereto.
19. Document containing August 1997 comment regarding contingencies.
20. Any internal communications regarding suitability of particular economic and engineering models and assumptions with respect to results.
21. Any preliminary and final papers prepared in response to requests from Congress or in connection with preparing a report to Congress.
22. E-mail message of February 4, 2000, or thereabouts from Harry Kitch to Dr. Jim Johnson regarding meeting with MG Van Winkle.
23. Affidavit of Don Sweeney.
24. Jeffrey Marmorstein's notes of conversation with Mike Grunwald, February 3, 2000.
25. All economic elasticity studies for grain in the UMRS.
26. Actual figures for grain shipments since 1989 on the waterways in question, with elasticity figures for the same.
27. Projections for grain shipments on these waterways through 2015, with elasticity figures based on the same.
28. Memorandum summarizing December 1999 meeting in Vicksburg, Mississippi, quoted in Lenard Ross affidavit.
29. Memorandum of February 4, 2000, quoted in David Sanford affidavit.
30. Transcripts, minutes, or notes from video teleconference of January 28, 2000, and meeting of February 4, 2000.
31. Communications from interest groups supporting statement in paragraph 9 of Hans Van Winkle affidavit.

LIST OF AFFIDAVITS

TAB A. MG Phillip R. Anderson
TAB B. Mr. Thomas F. Caver
TAB C. MG Russell L. Fuhrman
TAB D. Mr. Dudley Hanson
TAB E. Mr. Bobby R. Hughey
TAB F. Mr. Harry E. Kitch
TAB G. Mr. Jeffrey Marmorstein
TAB H. Colonel James V. Mudd
TAB I. Mr. Lenard H. Ross

TAB J. Mr. David B. Sanford, Jr.
TAB K. Mr. Paul D. Soyke
TAB L. MG Hans Van Winkle

DEPARTMENT OF THE ARMY,
U.S. ARMY CORPS OF ENGINEERS,
Washington, DC 20314–1000, 03 MAR 2000.

Honorable GEORGE V. VOINOVICH, *Chairman,*
United States Senate,
Committee on Environment and Public Works,
Washington, DC 20510–4175

DEAR SENATOR VOINOVICH: This letter and the attached statements and affidavits respond to the Committee on Environment and Public Works' February 28, 2000 inquiry regarding the Upper Mississippi and Ilinois Rivers Navigation Project. Many of the questions were directed to individuals who will later, in all likelihood, provide information to other federal investigators, examining the same allegations. Therefore, their responses to the Committee's questions are being provided to you and your Committee by means of sworn affidavits.

We welcome this opportunity to provide the Committee with information it feels is essential to oversight of Corps Programs. This is the Corps' first opportunity to respond to the allegations. We trust the information provided presents a more balanced view of the issues surrounding the Upper Mississippi and Illinois Rivers Navigation Project Study than has emerged to date in press reports. As I testified before the Committee on February 24, 2000, I welcome, and will fully support, all independent outside investigations of the allegations and Congressional oversight of our process. I believe in the professionalism and dedication of the United States Army Corps of Engineers and its leadership. I am confident, as I stated before, that your trust in the integrity of the Corps will be intact after a review of our responses.

We stand ready to answer any further questions you or your Committee members have about the study.

Sincerely,

JOE N. BALLARD, *Lieutenant General, USA Commanding.*

QUESTIONS AND ANSWERS

Question 1. The Washington Post in a story dated February 24, 2000 states that a February 4, 2000 memo by Corps planner Harry Kitch stated that General Van Winkle said "we are the navigation proponent and we can't have a limp-wristed recommendation saying to build something out in 2025." What did General Van Winkle and Mr. Kitch mean by this statement?

Answer: See the attached affidavits of MG Hans Van Winkle (TAB L) and Mr. Harry E. Kitch (TAB F).

Question 2. The Washington Post, in a story dated February 24, 2000 states that a February 4, 2000 memo by Corps planner Harry Kitch stated that at one point during the meeting "concern was expressed that if we don't provide for the industry, navigation program might get moved to" the Department of Transportation. What did the participants in the meeting interpret this to mean?

Answer: See the attached affidavits of MG Hans Van Winkle (TAB L), Mr. Thomas F. Caver (TAB B), Mr. Harry E. Kitch (TAB F), and Mr. David B. Sanford, Jr. (TAB J).

Question 3. The Washington Post, in a story dated February 24, 2000 states that a slide show presentation cites certain "impediments to growth" including the laws governing the agency's conduct and the departure of some powerful friends on Capitol Hill-and calls for a "specifically targeted communications plan" to bring Congress and the Clinton administration on board. What did the people who put together this slide show mean by this statement?

Answer: See the attached affidavit of Mr. Thomas F. Caver (TAB B), and the slide show presentations (Exhibits 1 and 2).

Question 4. The Washington Post, in a story dated February 15, 2000 states that assistant Army Secretary in charge of the Corps' $4 billion civil works program, met with (Secretary) Caldera yesterday to discuss the situation. Six environmental groups wrote to him in 1998 to ask him to review the Upper Mississippi study; he never responded to their letter. Yesterday, though he said he took Sweeney's allegations "very seriously". Why did Assistant Secretary Westphal fail to respond to the 1998 request from the six environmental groups to review the Upper Mississippi study?

Answer: Assistant Secretary Joseph Westphal will provide his response under separate cover.

Question 5. The Washington Post in a story dated February 13, 2000 states that top officials ordered the study team "to support a defensible set of . . . projects," and eventually rearranged the numbers so that they supported a case for construction. One memo candidly declared that if the economics did not "capture the need for navigation improvements, then we have to find some other way to do it." Who are the top officials that ordered the study team to support a defensible set of projects? What did these top officials mean by "other ways" to capture the need for navigation improvements.

Answer: The statements were contained in an email from Dudley M. Hanson dated September 25, 1998. (Exhibit 3). In responding to this email a short time later, Mr. Harry E. Kitch disagreed with some of the statements Mr. Hanson had made. (Exhibit 3). Included among those disagreements were Mr. Hanson's impressions regarding "supporting a defensible set of projects", and "other ways to capture the need for navigation improvements." In his affidavit, Mr. Hanson has explained what he meant by those two subjects in a manner that is consistent with Mr. Kitch's understanding as well as what MG Russell Fuhrman has stated in his affidavit (TAB C).

Question 6. The Washington Post in a story dated February 13, 2000 states that Corps research analyst Jeffrey Marmorstein said "It's very sad that this study is becoming another embarrassment". The story also states the Mr. Marmorstein said that "Unfortunately, the management of the Corps has lost all respect for unbiased analysis." What did Mr. Marmorstein mean when he said that study was becoming an embarrassment and the management of the Corps has lost all respect for unbiased analysis?

Answer: See the affidavit of Jeffrey Marmorstein (TAB G).

Question 7. The Washington Post in a story dated February 13, 2000 states that a memo summarizing a December meeting in Vicksburg states that "To grow the civil works program [headquarters] aud the Division have agreed to get creative," and "They will be looking for ways to get [studies] to 'yes' as fast as possible. We have been encouraged to have our study managers not take 'no' for an answer. The push to grow the program is coming from the top down. "What did the writer of the memo mean by "getting to yes as soon as possible" and that study managers not take 'no' for an answer?

Answer: See the affidavit of Lenard H. Ross (TAB I).

Question 8. The Washington Post in a story dated February 13, 2000 states that in June (1998), just three months before the study's due date, General Anderson transferred all economics questions to a new panel, demoting Sweeney to a mere "advisor" to the panel. Why did General Anderson transfer all duties to a new panel and why did he demote Mr. Sweeney to an advisor?

Answer: See the affidavit of MG Phillip R. Anderson (TAB A).

Question 9. The Washington Post in a story dated February 13, 2000 states that on September 3 (1998) an official laid out the panel's new mission in an e-mail: "The team should determine an alternative . . . that appears to be the most likely to justify large-scale alternatives in the near-term." Who was the official and what did he or she mean by an alternative that was likely to justify near term large scale alternatives in the near future?

Answer: See the affidavit of Paul D. Soyke (TAB K).

Question 10. The Washington Post in a story dated February 13, 2000 states that project manager Dudley Hanson wrote a memo relaying (Major General) Fuhrman's instructions to the panel "If the demand curves, traffic growth projects (sic) and associated variables . . . do not capture the need for navigation improvements, then we have to figure out some other way to do it . . . We need to develop a rationale for making this relatively more subjective approach to our analytical process." The story also indicates that the memo's "Guidance" section was even more explicit about Fuhrman's call for preordained results: He directs that we develop evidence or data to support a defensible set of capacity enhancement projects. . . The rationale should ere on the high side." Is the memo an accurate account of Major General Fuhrman's instructions to the panel? If so, what did Major General Fuhrman mean by figuring, out a way to capture the needs for navigation improvements and a "more subjective approach to our analytical process" and what did he mean by "evidence or data to support a defensible set of capacity enhancement projects" and that the "rational should err on the high side".

Answer: See the affidavit of MG Russell L. Fuhrman (TAB C).

Question 11. The Washington Post in a story dated February 13, 2000 states that project manager Dudley Hanson wrote in another e-mail "This overt advocacy role, to me, is a new departure. We'll have to work in a story line. . . We will need corporate solidarity when we go back to our publics with this more aggressive advocacy position." What did Mr. Hanson mean by an overt advocacy role?

Answer: See affidavit of Mr. Dudley Hanson (TAB D).

Question 12. The Washington Post in a story dated February 13, 2000 in discussing an economic equation states that Sweeney computed the main n value a 2. Burton later concurred. Under pressure from above, Richard Manguno, the new economics team leader, reluctantly reduced n to 1.5. But that was still too high to justify lock expansion, and he refused to go lower without a command. Later in the story it is stated that three weeks later (Colonel) Mudd called (Mr.) Manguno. N he declared was now 1.2. Did officials of the Corps pressure Mr. Manguno to lower the N value? If so, who were these officials and on what basis was the value lowered? Did Colonel Mudd lower the N value to 1.2? If so, on what basis was the value lowered?

Answer: See the affidavit of Colonel James V. Mudd (TAB H).

Question 13. The Washington Post in a story dated February 13, 2000 states that a Corps "study update" announced a sudden new benefit: Lock expansion would preempt the need for renovations in 2015—even though an earlier Corps analysis had found there would be no need for renovations until at least 2033. The same update also included a sudden new cutback in costs: The estimate for overruns was chopped from 35 percent to 25 percent. Earlier, Corps officials had inflated the benefits of lock expansion by assuming the tows would no longer use much self-help, Sweeney argued. Did the study update change the date of renovations from 2033 to 2015 and, if so, on what basis? Did the study update cut the contingency factor from 35 percent to 25 percent, and if so, on what basis? Was the assumption on the use of self-help reduced and, if so, on what basis?

Answer: See the affidavit of Mr. Bobby R. Hughey (TAB E).

Question 14. The Washington Post in a story dated February 13, 2000 states that on July 4, (1999) (Colonel) Mudd disbanded the (economics) panel. Why did Colonel Mudd disband the panel when the study was not yet complete?

Answer: See the affidavits of MG Phillip R. Anderson (TAB A) and Colonel James V. Mudd (TAB H).

TAB A

BEFORE THE UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, AFFIDAVIT OF MAJOR GENERAL PHILLIP R. ANDERSON

Pursuant to 28 U.S.C. Sec. 1746, the undersigned hereby executes the following sworn statement under penalty of perjury.

1. I, Phillip R. Anderson do hereby declare that I am a Major General in the United States Army currently serving, since July, 1997 as the Division Commander and Division Engineer of the U.S. Army Corps of Engineers, Mississippi Valley Division (CEMVD). I also am the President of the Mississippi River Commission.

2. This affidavit is being prepared in response to written questions in a letter from Senator George V. Voinovich dated February 28, 2000, on behalf of the Senate Committee on Environment and Public Works. Senator Voinovich's letter and the attached questions relate to the U. S. Army Corps of Engineers' (USAGE) Upper Mississippi River and the Illinois Waterway System Study (UMRS). With regard to the assertion contained in Question 8 of the Senator Voinovich letter to the effect that I allegedly "demoted" Dr. Sweeney, I am able to state without qualification that Dr. Sweeney is and remains a GS-13 senior regional economist with the St. Louis District. He has neither been demoted or reduced in grade by an adverse personnel action.

3. The UMRS is a comprehensive and complex effort. Over seventy (70) employees of the U.S. Army Corps of Engineers (USAGE) have been involved in a variety of capacities in the study. These personnel come from a number of USACE organizational elements. Throughout the study, work and leadership responsibilities have changed. Due to the magnitude of the study and the complexities involved, there should be no expectation by any staff member that they will have the same exact responsibilities during the entire duration of the study.

4. Changes in work responsibilities have been made for a variety of reasons. On April 16, 1998, I cancelled a meeting scheduled for April 23, 1998 in St. Louis with the Governors' Liaison Committee (GLC), since schedule deadlines had not been met; economic and environmental data were missing; there was 3 need to examine

differences between economic models being used on the Ohio River and those on the Mississippi River; cost quantification of measures that could be used to avoid and minimize environmental impacts had to be done; and there was a need to perform hazard analyses of industry self help measures. (See Attachment 1). In a letter dated April 16, 1998 to the GLC, I described in more detail what USACE had to do before we could have a GLC meeting. (Attachment 2). I specifically advised the GLC that a number of study components were behind schedule. In spite of the schedule slippages however, I advised the GLC that we were reevaluating the schedule and making sure that there were no short-cuts of any of the planned coordination. A number of products had to be completed before we had a meeting with the GLC. These included the following: "Technical review of economic products including modal-shift analysis, the equilibrium model and the optimization model;" and "Outputs of economic models (traffic projections) for various alternatives needed for input to environmental models." (Attachment 2).

5. As the above listing shows, schedule slippages in this very important study were becoming serious. Generally, the responsibility for maintaining study schedules rests with the District Commander. The UMRS was an unusual comprehensive effort in that four of the CEMVD Districts were directly involved in the study analysis or in the independent technical reviews. Since the UMRS involved resources in more than one district, I had a greater role and responsibility for ensuring that the UMRS was a quality product.

6. In order to get the UMRS back on track and to assure better adherence to the schedule I had to make some changes to the management structure of the UMRS. I identified actions that I determined, based on staff recommendations, were necessary to correct study management schedule and product deficiencies, in letters dated June 17, 1998 to Major General Hans Van Winkle, who during the June 1998 timeframe General Van Winkle was of the rank of Brigadier General and was the Division Commander and Division Engineer of the Great Lakes and Ohio River Division (CELRD), and the three District engineers in the New Orleans District, the St. Louis District and the Rock Island District. (Attachments 3 and 4). I had a concern that higher level management was needed to restore the schedule and obtain quality products. I designated Dudley Hanson, who was the top ranking civilian of the Rock Island District at the time, as the full-time project manager of the UMRS to achieve those objectives. In order to have better leadership of the economic work products, I created an economics panel that consisted of the functional economic branch chiefs of the St. Louis, Rock Island and New Orleans Districts. Consistent with selecting a higher graded project manager, I also selected a higher graded economist, the GS-14 Chief of Economics Branch in New Orleans, Rich Manguno, to chair the panel. Ms. Diane Karnish, GS-13 Chief of Economics Branch in St. Louis (Dr. Sweeney's supervisor) was also a panel member. Additionally, Mr. Paul Soyke, GS-13 Chief of Economics Branch in Rock Island was a panel member. Mr. Wes Walker of USAGE's Lakes and River Division's (CELRD) Huntington District was also a panel member. CELRD has been considered a center of expertise for economic evaluations of inland navigation projects. I coordinated with General Van Winkle to obtain help from Mr. Wes Walker. As such, the designation of a full-time senior project manager and an economic panel compromised of District Chiefs of Economics brought more leadership resources and economics expertise to the study and thus a broader perspective of the study was anticipated. My goal in effecting these measures was to achieve the production of a quality study within a schedule designed to achieve the deadline of issuing a final feasibility report and environmental impact statement to USACE headquarters by December 2000.

7. I maintained the importance of Dr. Sweeney's contributions to the study by retaining him as an advisor to the economics panel. At no time did I direct a demotion or reduction of grade of Dr. Sweeney, and he has not been demoted. He is and remains a GS-13 senior regional economist with the St. Louis District.

8. With regard to question 14 of Senator Voinovich's letter, Colonel Mudd did not disband the June 1998 ad hoc economics panel. I determined that since the ad hoc economics panel had completed its function in July of 1999, it was time to release the members so that they could return full time to their normal duties as District-level economic staff chiefs. I still retained a high graded economist, the GS-14 New Orleans District Chief of Economics Branch, Rich Manguno, to lead the remaining efforts of the economic work group.

9. All of my actions described above were for the purposes of meeting schedule deadlines and ensuring that sound analyses, data and modeling were being pro-

duced so that we would have the best draft feasibility UMRS report and environmental impact statement for release for public review and comment in June 2000.

PHILLIP R. ANDERSON, *Major General, U.S. Army Division Engineer.*

Subscribed and sworn to before me in the District of Columbia on this 2nd day of March, 2000.

BARBARA J. DAVIS,
Notary Public District of Columbia,
My Commission Expires June 14, 2001.

ATTACHMENT 1

Arnold, William MVD

From: Phillip Anderson
Sent: Thursday, April 16, 1998 8:41 AM
To: X400, Russell—Fuhrman, CECW-ZA
Cc: HERNDOND; RHODESG; CALDWELL; X400.Hans—Vanwinkle—CELRD-DE
Subject: Upper Ms Nav Study

Russ, Met with subject study team yesterday as we discussed. Directed that scheduled 23 Apr meeting with the Governor's Liaison Committee in St. Louis be postponed and rescheduled at a time to be determined. This is a public meeting so we're working hard to get the word out to other likely participants.

Canceled this GLC meeting for the following reasons:

—HQS USACE has not yet been briefed on the prelim results. Thatch now scheduled for Thursday afternoon next week at FLW. Will fly in the SMEs using the MVD G1 and fly them out afterwards. Brian Sullivan, I'm told is working on a meeting location for us.

—Major differences between the special equilibrium-model we're using and the one being used by LRD for their lock and dam improvements. Our model generates significantly less benefits. This could have significant Corps wide implications and we need to speak with one voice.

—Significant economic and environmental data missing which are necessary for decision making.

—Have not quantified the costs associated with avoiding and minimizing adverse environmental impacts.

—Need to do a hazard analysis of some of the suggested industry self-help small scale improvements. This analysis might warrant construction of guide wall extensions and other safety measures.

During my brief yesterday, there were probably 25 Corps employees present and no one advocated that we continue with the GLC as scheduled so confident that we're doing the right thing. Will be signing a letter today which factually explains this situation and we will get you a copy. See you next week. Essayons, Phil.

ATTACHMENT 2

EXECUTIVE OFFICE
April 16, 1998

DEAR GOVERNORS' LIAISON COMMITTEE MEMBER:

For reasons outlined below, I think that it is best to postpone the meeting of the Governors' Liaison Committee (GLC) scheduled for April 23, 1998, in St. Louis. The next meeting will be the regularly scheduled meeting on May 12, 1998, in St. Paul. I apologize for the short notice, but I believe, after a thorough briefing by my District Engineers and their staffs, that this is the best decision considering study progress to date. We are giving this cancellation the widest possible dissemination including sending a notice to our newsletter mailing list, posting it on our web site, and adding it to our toll free number. I also ask that you help us in informing others in your state who may have planned to come to the meeting.

A significant number of study components are behind schedule. This will likely affect our schedule for public meetings this summer, the schedule for future GLC meetings, as well as possibly the overall study completion date. However, I want to assure you that you and your staffs will be given ample opportunity to fully review study products and provide input to the plan formulation process as we have previously planned. In fact, one reason we are reevaluating the schedule is to not short-cut any of the planned coordination.

For clarification, most of the following key study elements are nearing completion but are behind schedule and are critical to the development of the preliminary National Economic Development(NED) plan and future plan formulation activities:

—Technical review of engineering studies that quantify cost and performance data for large and small-scale measures.

—Technical review of economic products including modal-shift analysis, the equilibrium model, and the optimization model.

—Outputs of economic models (traffic projections) for various alternatives needed for input to environmental models.

—Completion and technical review of several of the environmental models needed for quantification of system environmental effects, data from which will be used to develop mitigation or avoid and minimize measures.

As we have stated on numerous occasions, the original schedule was optimistic and envisioned a concurrent quality control process that allowed for a smooth transition between model development and model application However, development of these system tools, many which are state-of-the-art, and the applicable quality control have been more difficult and time consuming than originally anticipated.

It is my responsibility to assure that the Corps produces creditable, professional analyses to support our planning effort. Some schedule change is necessary to complete our technical review which will assure adequacy of all data prior to alternative evaluation. Therefore, after carefully reviewing all these considerations, I think that it is better to allow additional time in the schedule to more fully develop data, assure its accuracy, and allow adequate time for public and agency input than to adhere to the original plan of action.

As discussed, we will hold the GLC meeting scheduled on May 12, 1998, at the St. Paul Radisson Hotel as planned. The meeting is scheduled to begin at 1:00 p.m. and will be used to provide you a status report and discuss the overall study schedule. Although we will not be prepared at that meeting to present the NED plan, we have made progress in several areas of the study on which we will provide you a report. This will be very useful information as we move into the plan formulation process later this year.

My point of contact for this action is Mr. George H. Rhodes, Jr., (601) 634–5762.

Sincerely,

PHILLIP R. ANDERSON *Major General, U.S. Army Division Engineer.*

ATTACHMENT 3

CEMVD-ET-P
17 June 1998

MEMORANDUM FOR

Commander, Rock Island District
Commander, St. Louis District
Commander, New Orlean District

SUBJECT: Upper Mississippi Navigation Study

1. I have become concerned with the rate of progress in key areas of the subject study during the past several months. This study is a high priority for the Mississippi Valley Division, the Corps of Engineers, and I believe, for the nation. One of the very key elements of the study I have continued to focus on is the economic analyisis--both the conceptual framework and the analytical tools that execute the concept into Quantified outputs. Because of my concerns regarding the progress of the study and the need for revolutionary changes in our management of this study and after consultations with the Director of Civil Works, I have made the following decisions:

a. Mr. Dudley Hanson, Rock Island District, will be appointed the project manager For the subject study as his sole responsibility to the exclusion of his normal activities. This level of management attention is warranted until at least the development of the draft plan and possibly through the subsequent public review.

b. I am creating a panel comprised of the Chiefs of Economics in the Rock Island, St. Louis, and New Orleane Districts and an appropriate representative from the Navigation Studies Center in LRD. The purpose of this panel is to provide economic analysis products required for further progress on the subject study. Dr. Don Sweeney, St. Louis District, will serve in an advisory capacity to the group. The panel will report directly to Mr. Hanson who may appoint other personnel to provide administrative and support assistance as prudent and necessary.

c. The panel will be responsible for identification of the NED plan and For producing economic analysis tools sufficient to analyze additional alternatives, all to be

completed within 90 days of beginning of work. A detailed plan for the 90-day effort, which will include an in-progress review on or about day 70 to be attended by the EQ, will be provided to this office not later than clove of business 22 June 1999.

2. Each respective District Commander is to ensure that the panel leader and members are assigned to this purpose as their highest priority activity and are available throughout the duration of the 90-day effort. I will separately transmit a request to the LRD Division Commander seeking the assignment of an appropriate member to the panel from LAX-NC. Funds will be reprogrammed from existing project funds by the Rock Island District and provided to the panel members for their costs associated with this purpose.

3. My point of contact for this action is Mr. Dusty Rhodes, (601) 634–5762.

PHILLIP R. ANDERSON *Major General, USA Commanding.*

CF: MG Russell Furman, HQUSACE (CECW-ZA)

ATTACHMENT 4

CEMVD-ET-P
17 June 1998

MEMORANDUM FOR

BG Hans A. van Winkle, Commander, U.S. Army Engineer Division, Great Lakes and Ohio River, P.O. Box 1159, Cincinnati, OH 45201–1159

SUBJECT: Upper Mississippi Navigation Study

1. I have become concerned with the rate of progress in key areas of the subject study during the past several months. This study is a high priority for the Mississippi Valley Division, the Corps of Engineers, and I believe, for the nation. One of the very key elements of the study I have continued to focus on is the economic analysis--both the conceptual framework and the analytical tool'' that execute the concept into quantified outputs. Because of my concerns regarding the progress of the tudy and the need for revolutionary changes in our management of this study and after consultations with the Director of Civil Works, I have made the following decisions:

a. Mr Dudley Hanson, Rock Island District, will be appointed the project manager for the subject study as his sole responsibility to the exclusion of his normal activities. This level of management attention is warranted until at least the development of the draft plan and possibly through the subsequent public review.

b. I am creating a panel comprised of the Chiefs of Economics in the Rock Island, St. Louis, and Hew Orleans Districts and would like to include an appropriate representative from the Navigation Studies Center in LED. The purpose of this panel is to provide economic analysis products required for further progress on the subject study Dr. Don Sweeney, St Louis District, will serve in an advisory capacity to the group. The panel will report directly to Mr. Hanson who may appoint other personnel to provide administrative and support assistance as prudent and necessary.

c. The panel will be responsible for identification of the NED plan and for producing economic analysis tools sufficient to analyze additional alternatives, all to be completed within so days of beginning of work. A detailed plan for the 90-day effort, which will include an in-progress review on or about day 70 to he attended by the EQ, will be provided to this office not later than close of business 22 June 1998.

2. I am directing my appropriate District Commanders to ensure that the panel leader and members are assigned to this purpose as their highest priority activity and are available throughout the duration of the So-day effort. I am hereby requesting the assignment of an appropriate member to the panel from LRH-NC, with the Same terms of highest priority availability. I believe that if we work together on this project we may avoid the perception of incompatibility with our respective navigation system studies. Specifically, I request that Mr. Wes Walker be assigned to this role. We will, of course, reimburse the Huntington District for any expenses incurred by your designee.

3. I appreciate your personal involvement with this matter, and I am certainly available to discuss this with you if you need more information.

4. My point of contact for this action is Mr. Dusty Rhodes, (501) 634–5762.

PHILIP R. ANDERSON *Major General, USA Commanding.*

TAB B

BEFORE THE UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS AFFIDAVIT OF THOMAS F. CAVER, JR.

Pursuant to 28 U.S.C. 1746, the undersigned hereby executes the following sworn statement under penalty of perjury.

1. I, Thomas F. Caver, Jr. do hereby declare that I am an employee of the U.S. Army Corps of Engineers, and currently serve as the Chief, Programs Management Division in the Directorate of Civil Works, Headquarters, U.S. Army Corps of Engineers.

The Committee's question 2 which relates to a February 4, 2000 memo which contains the statement "concern was expressed that if we don't provide for the industry, navigation program might get moved to" Department of Transportation. During the meeting in which this statement was made, there was a discussion of the Corps' mission responsibility to broadly assess the long-term navigation needs of the Nation, applying a visionary approach to the assessments and subsequent recommendations, to include the concerns of all interested stakeholders. I interpreted this statement as one of self-criticism that the Corps has a tendency to formulate projects in a narrow sense, and if we were unable to fulfill the broad mission responsibility, the Nation would find others, with DoT used as an example, to fill that need.

3. With respect to question 3 concerning a "slide show presentation," the slide show referred to by the Washington Post consists of thirteen briefing charts used to engage the Chief of Engineers, the eight Division Commanders and other members of the Corps Board of Directors in a discussion of water resource problems across the Nation and how the Corps could better fulfill its mission of assessing and meeting the demands. At the Corps of Engineers Senior Leadership Conference in San Francisco in August 1999, the Assistant Secretary of the Army for Civil Works made remarks that focused on the unmet needs in water resources in this nation and challenged the Corps to take a longer term view. The Secretary's remarks stimulated reflection by the Corps on the magnitude of water resources needs facing the Nation. Work was initiated to quantify the needs and assess the ability of the Corps to satisfy the needs. This discussion represented an inprogress review on the effort for the purpose of determining whether it was proceeding in an effective manner and to receive guidance from the Chief and the BOD in proceeding from that point. The presentation outlined the initial findings on "needs". Some of the needs identified were:

Backlog of Maintenance	$1.6 Billion
Average Annual Flood Damages	$4.0 Billion
Navigation Tonnages	Double by 2020
Lock Chambers	9% over 50 years old
Wetlands Loss	53% of acreage in Lower 48 States—an area larger than the State of California—117 Million acres
Water Supply	Many Areas of droughts and competing uses
Existing Infrastructure	Value of Corps maintained Infrastructure declined $25 Billion since 1981 to present value of $125 Billion.

4. The presentation also included a graph that depicted the Civil Works Capital Investment over the period 1929 to 2000 in constant 1999 dollars. The graph showed that capital investment had increased (with dips during WWII and Korea) to a high of $5 Billion per year in 1966 and started to drop precipitously about 1980 to the present level of less than $2 billion per year. The presentation went on to discuss the ability of today's Corps of Engineers to respond to the challenge of satisfying the identified needs.

5. The "impediments to growth" summarized on the briefing slide referred specifically to the Corps' inability in its current condition to be responsive to these national water resources challenges and to challenge the organization to think broadly outside of its day-to-day business. Seven specific areas of concern were identified as follows:

• Principles and Guidelines (P&G)—this refers to the guidance that all Federal water resources agencies follow in formulating solutions to water resources problems. In a review of the Corps' planning process recently completed by the National

Academy of Sciences (NAS), the NAS commented that these guidelines are outdated and do not reflect today's principles and practices and values. For example, the P&G don't give sufficient weight to environmental and social benefits and don't allow proper consideration of non-structural flood control solutions. The NAS report suggested that P&G should be updated.

• Cost Sharing—while general cost sharing as legislated in the Water Resources Development Act of 1986 and elsewhere has brought tremendous discipline arid structure to individual project development, it has also had the unintended consequence of severely narrowing the scope of water resource problem solving, especially during the planning process. Water resources issues involve many different stakeholders and cross political boundaries. If the Corps is to be effective in dealing with these issues, it needs a way to address the matters in a comprehensive, basin-wide approach. This suggests that, to a limited degree, study cost sharing should be reconsidered.

• Loss of Congressional relationships—a fact of life is that the Congress faces a broader array of issues and challenges these days than in the past and has more competing constituencies; therefore, it's more difficult to raise issues associated with water resources to the fore. In general, the Corps has not awakened to this fact. The discussion point was intended to make the organization aware of this.

• Changes in Committee Control—as has been widely discussed of late, the manner in which the Congress conducts its business is also changing. Again, the intent was to make leaders in the Corps aware of this.

• Civil Works Business Process—the Corps' process has grown to become bureaucratic and cumbersome. The assertion here is that the organization must become more flexible and responsive to be of service in the future. The House of Representatives recognized this in its report on fiscal year 2000 appropriations and required the Corps to report to the Congress on ways of streamlining its business process.

• Loss of capability to build within the Corps—because of internal organizational culture and outside direction, the Corps has chosen over the past twenty or so years not to stimulate any significant National discussion of broad water resources problems. As a result, the organization doesn't even know how to do this at a time when national needs are great and long-term impacts are potentially significant. The intent here was to highlight this fact as a first step in dealing with it. Relationship within the Executive Branch—similarly, the Corps hasn't been effective Ln championing national water resources needs within the Administration. Among other reasons, this has led to less emphasis on water resources in Administration initiatives and priorities.

6. The "specifically targeted communications plan" actually appeared on a slide following the "impediments" slide in the presentation and referred to the need to inform the complete array of interested stakeholders of the national problems and challenges. Further, the message was that the Corps isn't very good at communications and that effective communications must be tailored to the audience so the message is understandable. The Corps has a tendency to incorrectly assume its mostly "technical" messages (and the implications from them) are readily understood by all.

7. The slide show, and the discussion it was designed to generate, was an early part of the process of developing an annual and outyear program and budget for the Civil Works program. This is done initially as an exercise internal to the Corps of Engineers and is a preliminary deliberative process of proposing and examining options ultimately leading to specific recommendations to the Assistant Secretary of the Army for Civil Works. Corps recommendations are then subjected to a series of reviews at the Army and Of lice of Management and Budget levels before decisions are finally reached on specific program and budget provisions to be included in the President's budget for submission to the Congress. I declare under penalty of perjury under the laws of the United States of America that the foregoing statement is true and correct to the best of my knowledge.

THOMAS F. CAVER, JR.

Subscribed and Sworn to Before me in the District of Columbia, on this 3rd Day of March, 2000.

BARBARA J. DAVIS,
Notary Public,
My Commission Expires: June 14, 2001.

TAB C

BEFORE THE UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS AFFIDAVIT OF RUSSELL L. FUHRMAN

Pursuant to 28 U.S.C. 1746, the undersigned hereby executes the following sworn statement under penalty of perjury.

1. I, Russell L. Fuhrman do hereby declare that I am a Major General in the U.S. Army and am currently serving as the Deputy Commander, U.S. Army Corps of Engineers.

2. I want to state from the outset that I did not, at any time, direct anyone to skew or falsify data or the economic analysis in the Upper Mississippi River Study. In fact, as stated, below, the purpose of my involvement was, and is, to insure that appropriate and adequate models, data, and assumptions are used in the economic analysis which supports the Study. I never called for preordained results; just the opposite, I insisted that we bring in the best experts from around the Corps to address all issues associated with the Upper Mississippi River Study so that the Study could withstand the scrutiny of all interest groups, the Administration and Congress. The product we had 18 months ago would not have withstood that scrutiny.

3. Before I elaborate upon my involvement in the Upper Mississippi River Study, I want to respond directly to the Committee on Environment and Public Works' question Number 10 concerning the Washington Post's story quoting a 25 September email from Mr. Dudley M. Hanson relaying his (Mr. Hanson's) perception of my instructions to a "panel." To clarify the record there was no panel. Two meetings, approximately one month apart, were conducted as "in progress reviews" (IPRs) of the Study. They involved a significant amount of interchange between technical experts from my Headquarters, the Division and District Staffs which is not reflected in Mr. Hanson's email, but which I will address in more detail below. Moreover, until recently I was unaware of the Hanson email. I would point out, however, that a contemporaneously executed email of 25 September 1998 from Harry Kitch of my staff to Mr. Hanson informed him that the quotations, referred to in question 10, and perceptions described in his (Mr. Hanson's) email were inaccurate. The Kitch email is enclosed for your review. It presents a position consistent with my recollection of what took place during the IPR.

4. With regard to question 11 on advocacy, I do not know what Mr. Hanson means by advocacy, but my view of advocacy is as follows. The Corps of Engineers is the advocate for water resource development and conservation activities to include flood control, hydropower, navigation, environment, recreation and the like. In my view, the Corps' role is similar to the advocacy role the Department of Transportation plays for air and surface transportation and the advocacy role Department of Agriculture plays for agricultural interests. As water resource advocates it is our mission to assess the nations needs/requirements and present those to the Administration and Congress for their decision on setting national priorities and resource allocations.

5. Getting back to the Study, in late August or early September of 1998 my staff received several calls from agricultural interests and navigation interests on the Upper Mississippi challenging the preliminary data the District was about to release to the Governors oversight group on the Upper Mississippi River Study. In the same time frame, Brian Burke (Deputy Assistant Secretary of the Army for Civil Works Office) and I were at a meeting with Mike Dunn (Department of Agriculture) when he raised Department of Agriculture's concern with the preliminary data coming out of the Upper Mississippi River Study. He wanted to ensure our data adequately reflected the potential for grain export in the region and the importance of ensuring we have the required capacity on our inland waterways system so the farmers could be competitive in the world market in the 21st century. I was informed by Major General Phillip R. Anderson (Commander, Mississippi Valley Division) that he had also been receiving a number of calls from interests groups on the same subject. Concerns raised by the interests groups were: (1) Why was the Corps using a different (new) model which was supposedly untested? Why were we not using the Huntington model which had been used on our previous lock and dam studies? What was the difference between the two models? (2) Demand curves for commodities—The interest groups contended we were using the wrong demand curves and we were using different demand curves on the Ohio than on the Upper Mississippi. (3) Projections—The interest groups contended the Districts traffic projections and Agriculture production projections did not agree with theirs. They contended they had an independent group study the issues and were coming up with much larger projections. (4) Assumptions—The interest groups contended the Dis-

trict was using inaccurate assumptions and different assumptions than we were using on the Ohio River in our Studies.

6. This was the first time that I became aware that we had developed a new model for this Study and were not using the standard model we had used on the Ohio River for years. asked my staff why there were two models and no one had an answer, nor could any one on my or the Division staff explain, at the time, the differences between the two models or how they would react to the same or different inputs. In addition the concerns raised by the Department of Agriculture and the interests groups needed to be addressed. The recommendation of my staff and MG Anderson' staff was we conduct an "in progress review" (IPR) to determine exactly where we were and how confident we were in our preliminary data before we allowed the District to release any information to the Governors. At that time, we were still in the early study phase leading to a draft report with multiple agency and public reviews to follow, but to me it was absolutely key that we resolve any differences in the models, demand curves, projections, and assumptions raised by the interests groups. I wanted the technical experts on the Division staff and my staff to be comfortable that the District's work was ready for public review from all interest groups. MG Anderson agreed with me and he brought his staff to Washington on 23 September 1998 for the first of two IPR meetings.

7. Since the meetings occurred 17 months ago, I can't recall all of the details, but I do remember the important facts. I started our meeting telling the group this was an important study. The Nation had invested $50 million dollars in the study and the purpose of the study was to determine what navigation capacity was needed in the Upper Mississippi in the next 20- 50 years. The Corps needs to use its best experts and the best models and information available throughout the Corps and the Nation. Our work had to withstand the scrutiny of all interest groups. In the end, the economic well being of the region 20–30 years from now could well be dependent on the results of our study. I use the term "advocacy" to describe this role. We are the agency responsible for insuring water resource issues are appropriately represented to the Administration and Congress just as the Department of Transportation insures surface and air transportation issues are appropriately represented to the Administration and Congress. After my introduction, the District briefed where they were in the study and tried to address the issues outlined above. We had lots of discussion between technical experts on my staff, the Division and District staffs. The bottomline to come out of this first meeting was the District did not know the differences between the models nor did it know the sensitivity of either model to assumptions, projections, demand curves, etc. The District was unable to answer the challenges put forth by the interested groups cited above. In addition the District had not done a good job of taking into account environmental mitigation costs. I directed that they include these in the overall costs. Part of the problem was that the experts capable of addressing the issues needed time to sort through the issues. It was determined it would take the Division about a month to sort through the issues and determine which ones needed further study and which ones the District already had enough information. We also decided that we needed to bring in our best experts from around the Corps to assist the District and Division so we had the best study the Corps could produce, not the best study the District could produce. The first order of business was to set up a taskforce to look at the two models and determine the differences between the two, if any. At the same time the Division needed to address the other issues raised by the interest groups to insure we could adequately answer them. About a month later the Division came back and laid out a plan to address the issues described above and requested a dollar and time extension which I approved. This was essentially my last contact with the Study. A few months later I left as the Director of Civil Works to become Deputy Commanding General of the United States Army Corps of Engineers.

I declare under penalty of perjury under the laws of the United States of America that the foregoing statement is true and correct to the best of my knowledge.

RUSSELL L. FUHRMAN, *Major General, U.S. Army Deputy Commander,*.

Subscribed and Sworn To Before me in the District of Columbia, on this 3rd Day of March, 2000.

BARBARA J. DAVIS,
Notary Public,
My Commission Expires: June 14, 2001.

TAB D

AFFIDAVIT, STATE OF ILLINOIS, COUNTY OF ROCK ISLAND

I, Dudley M. Hanson, was Deputy for Programs and Project Management of the Rock Island District of the U.S. Army Corps of Engineers until October of 1999. I also was Project Manager for the Upper Mississippi River-Illinois Waterway System Navigation Study from April 1998 to December 1998. Relative to Questions No. 5 and 11 in the February 28, 2000 letter from Senator Voinovich to LTG Ballard, I hereby depose and say:

In reference to Question No. 5, I was the Project Manager for the study in September 1998 and used the term "other ways" in relating guidance from MG Fuhrman. The reference to "other ways" relates to identifying other considerations, some of which may not be quantifiable, which are relevant to the navigation study in addition to the traditional National Economic Development (NED) account benefits that a Corps analysis must include. These considerations were documented and discussed at the November 18, 1998 Governor's Liaison Committee meeting. The other items include the Congressionally recognized National significance of the Upper Mississippi River ecosystem and commercial navigation system, critical economic role of the river in the national economy, national interest in maintaining a competitive posture in agricultural exports and balance of trade, and the importance of providing adequate transportation infrastructure for the 21st Century. In addition, uncertainties related to some items were identified for presentation and potential discussion in the project report, including factors such as future demand, potential for changes in policy (e.g. ethanol subsidies), future rail rates, crop yields, and environmental considerations. In accordance with the Corps Principles and Guidelines, factors such as those listed above are to be considered in developing a recommended plan. It is noted that several of these concerns were included in Sec 139 of WRDA 99, which directed the Corps to proceed with preliminary engineering and design of 1,200 foot locks.

With regard to Question No. 11, the term "overt advocacy role" was in reference to MG Fuhrman's public statements that the Corps is viewed by many as the advocate for inland navigation, similar to how the US Dept of Transportation is the advocate for highways. As such, the Corps has the responsibility to look to the future and determine the needs for the inland waterway system. The Corps owes to the decision-makers in Congress the full range of alternatives and sensitivity analyses so that the best decisions can be made. Considerations regarding the national economy, competitive posture in agricultural exports and balance of trade and the impact on the environment must be taken into account as the Corps recommends measures that will provide adequate transportation infrastructure for the 21st Century.

As used in the referenced memo, the term "story line" is synonymous with "scenario". It was used specifically to ensure that the planning team, particularly the economics team, had not failed to consider any possible futures that would result in greater demand for waterborne commerce. Some of the building blocks of such possible futures could be such things as these:

1. Elimination of the ethanol subsidy to corn, which could free up hundreds of millions of bushels of corn for export;
2. Decommissioning of nuclear power plants, which could greatly increase the demand for waterborne coal for fossil-fueled power plants;
3. Transition from internal combustion engines to electric vehicles for surface transportation, which could increase electrical generation demand, and increased waterborne shipment of coal;

In witness whereof, I have set my hand this 2nd day of March 2000.

DUDLEY M. HANSON,

Subscribed and sworn to the undersigned, a notary public, in and for the State of Illinois, County of Rock Island, this 2nd day of March 2000.

ROBERT F. LAZENBY,
Notary Public, State of Illinois,
My Commission Expires 4–17–2002.

TAB E

I, Bobby R. Hughey, being duly sworn under oath and of legal age, and under no legal disability, do hereby state that the following is a true statement of facts according to my best recollection and knowledge.

In response to the question "Did the study update change the date of renovations from 2033 to 2015, and if so, on what basis?"

Yes. The preliminary results of the economic analysis for the reliability studies were discussed at an Economic Coordinating Committee on 11–12 May 1998. This discussion included a summary of the methodology being used and the preliminary results of the analysis, which showed no major rehabilitation needed until 35–40 years out in the future. This preliminary work was documented in a draft report dated June 1998. This preliminary analysis was a work in progress and had not been reviewed by the study team or ready for an Independent Technical Review. Subsequent reviews by the study team indicated some problems with the analysis. A second draft report was completed and distributed to the study team for review in April 1999. The results of this second report indicated that no rehabilitation would be justified in the next 50 years. The analysis indicated that failures will occur and repairs needed, however they would not be justified under current definitions and methodologies. The engineering work group seriously questioned the results of this report. This report is under going internal review by the study team and is not yet ready for an Independent Technical Review.

In the fall of 1997, an additional effort was undertaken to reduce the cost of construction for the lock extension alternative. This work was documented in the, the Interim Revised Lock Extension Design Concept Report published in March 1998. In the spring of 1999, in response to an additional preliminary economic analysis, the costs presented in this report were reevaluated. It was identified at this time that some components listed were items that would be replaced or repaired as part of any future without rehabilitation. An analysis was undertaken at that time to determine whether double counting was occurring for these components. The estimate contained in the referenced report included costs for miter gates, guidewall, some lock chamber concrete and metals, and operating machinery, culvert valves and operating machinery, power and lighting systems, mob/demote and preparatory work, care and diversion of chamber water. Significant portions of these cost factors were also contained in the cost estimates for the scheduled rehabilitation in the without project condition.

Schedules for major rehabilitation in the future were developed utilizing a 25-year expected extended life parameter. The site-specific future schedule for rehabilitations was established by adding 25 years from the last completed rehabilitation. For example lock 22 was last rehabilitated in 1990. The next rehabilitation is projected to occur in 2015. It was determined that if a lock extension project occurred close in time to the completion of a rehabilitation project, that the scheduled rehabilitation would not take place and these scheduled investments could be avoided. This results in the delaying or avoidance of a cycle of major rehabilitation in the 2015–2020 period and associated costs. This information was used in subsequent evaluations of the economic analysis.

It should be understood that development of the Future Without Project Investment is still a work in progress and many significant portions of the analysis need to be completed and reviewed.

In response to the question "Did the study update cut the contingency factor from 35 percent to 25 percent, and if so, on what basis?

Yes. The Upper Mississippi River-Illinois Waterway System Navigation Study has explored cost reductions for lock construction since completion of the Reconnaissance Report in 1991. The initial estimates in this report were produced with minimal site-specific engineering. Cost estimates were prepared utilizing traditional construction practices and totaled approximately $380 million per site.

In 1996, the Lock Concept Design Report was produced as a sub-product of the Engineering Appendix to the systems feasibility study. This report utilized preliminary site specific engineering for 2 representative sites (Locks 22 and 25) on the UMR. Innovative lock design and construction techniques were used to reduce cost estimates reported in the reconnaissance report. For the representative site at Lock 25, the least cost alternative for new lock construction involved extending the existing lock by 600 ft. at a cost of $160 million. The estimates contained in this report included 25% contingency. ER 1110–2–1302 provides guidance that suggests contingency values of 20% for feasibility level projects in excess of $10 million. An additional 5% was added because only preliminary site-specific engineering has been completed. During the ITR conducted in Aug 97 a comment was received that stated:

"Contingencies at this level of detail, especially considering innovative techniques, should possibly have a higher contingency than 25% to reflect the uncertainties involved. At this conceptual stage, 25% would appear more normal for conventional type construction and a minimum of 35% for innovative. "

This comment was accepted and 35% adopted as a contingency factor due to the risks and uncertainties associated with innovative lock design and construction.

In Jan. 1998, an additional effort was undertaken to reduce the cost of construction for a lock extension. The Interim Revised Lock Extension Design Concept Report was published in March 1998, and focused on reducing delays to navigation during construction and reusing more of the existing structure. The cost estimate for extending Lock 25 was reduced to $135 million with 35% contingencies. This document is scheduled to be included in the final Engineering Appendix.

In the spring of 1999, in response to an additional preliminary economic analysis, the contingencies were reevaluated for the lock extension costs. This along with other factors helped reduced the lock extension construction cost for Lock 25 to $120 million. The contingency factor was reduced to 25% for the following reasons:

a. A review of the Interim Revised Lock Extension Design Concept Report indicated that the majority of construction for the lock extension concept included traditional construction techniques. The innovative construction techniques were essentially limited to the float-in gate bay monolith and filling and emptying system. Reducing contingencies to match the factor of 20% recommended in ER 1 1 10–2–1302 was discussed, but rejected since only preliminary site-specific engineering had been completed for these sites.

b. The Corps has continued to push the state-of-the-art in innovative lock design and construction techniques. Since this was first evaluated in the 1996 Lock Concept Design Report, the Corps has completed additional research as part of the Innovative Navigation Program. In addition, some of these techniques are currently being utilized in the design and construction of projects on the Ohio River system. Actual contractor unit bid costs have been used to validate the unit costs applied to the UMR study for similar type designs and construction.

c. All construction costs have been reviewed on a continuous basis to ensure that they reflect the latest in contractor unit costs obtained from other corps navigation projects. The latest review was accomplished in the Nov/Dec 1999 period.

In response to the question "Was the assumption on the use of self-help reduced, and if so, on what basis?

Yes. History of Investigations: The universe of potential small-scale measures was identified in the General Assessment of Small-Scale Measures report (June 1995). Sixteen of the measures, including industry self help (ISH), were carried forward for more detailed examination and quantification of benefits as part of the Detailed Assessment of Small Scale Measures Report (December 1998). Industry self help is the practice where industry tows assist each other by extracting unpowered cuts from the lock without the assistance of lock personnel or equipment. The primary time savings results from allowing tow remake outside the lock, which makes it available for a quicker turnaround. This measure is currently utilized for approximately 1–1.5% of all lockages at the busiest locks on the system.

Additional coordination with the navigation industry, U.S. Maritime Administration, and U.S. Coast Guard in 1998 indicated that regular use of ISH is not practical due to the variability in conditions where it can be implemented safely. The general industry comment was that ISH is a stop gap measure that is used to minimize the impacts of a breakdown on the system, not a routine, long term measure to address increasing system traffic and delay. In addition environmental and social impacts were identified related to bankline damage and sensitive shoreline areas. It was determined that additional facilities would be required to minimize environmental impacts of increased use of ISH. In July 1998, a lockmaster expert panel was convened, to gather data on current use and their expectations for future usage. Through lock data collection and the meeting, it was verified that currently industry self help is only used on a very limited basis. In addition, due to a number of site-specific factors, this usage is not likely to increase significantly unless additional facilities are provided (guidewall extensions or remote remake). It was also determined that current use is limited to periods where queues grow to approximately 10–12 boats waiting at the lock, creating sufficient delays to warrant the risk of these operations.

The ISH measure can be placed in the without or with project condition depending on whether or not a Federal action is taken (additional facilities provided). The with-project condition for this system study was defined to include all small-scale measures potentially implemented on a system basis by a Federal action for system efficiency reasons. This resulted in the only measures falling in the without project

being measures which do not provide significant system efficiencies or require Federal actions.

In January 1999, the study team decided that without project economic model runs should limit the use of ISH to no more than 5 percent of the total commercial lockages. This was in addition to the previous limitation to only apply self help in situations were large queues of 10–12 boats were present. The rationale for this decision is as follows.

- Lock statistics from 1992–1998 showed actual usage of selihelp was limited to 1–1.5 percent, and only Locks 24 and 25 had achieved significant time savings historically. At these sites the highest usage was in 1992 at Lock 25 at 3.6 percent. The 5 percent rule allows some increase over current usage, while remaining close to observed rates.
- Despite the presence of considerable delay at times, ISH has not been used as a regular operation to lock tows at multiple sites for system efficiency reasons. Current usage is typically limited to clearing a bottleneck following a lock closure or delay at a single site. Even in these events its use is driven by economics of the situation and willingness of the tow boat operators to assume risk (e.g. large queues of 10–20 boats, grouping of tows N-up/N-down, safe operating conditions, etc.).
- ISH requires competing tow companies to pull each other's barges with uncertainty regarding assumption of risk and liability.
- Increased use of ISH in the without project raises concerns over impacts to environmental and social resources around remake areas.
- High use of ISH in the without project condition, without the addition of Federal facilities to reduce environmental and social impacts is not likely and foreseeable.

As a result of environmental and social concerns, unlimited use of ISH without Federal protective actions being taken is not likely and foreseeable. Instead if use were to grow significantly, facilities (guidewall extensions or remote remake areas) would have to be provided to mitigate impacts at remake or waiting areas. This would then trigger a Federal Action to address the resource concerns (construction of remote remake facilities or guidewall extensions), and under the study's definition would be considered a with project action. Corps operations and engineering staff had previously determined that ISH with remote remake facilities would not be provided as a federal action for regular use due to risk, safety, high variability in achieving time savings, implementability, dependability/reliability, increased maintenance needs, and river congestion issues. In addition, ISH with guidewall extensions was screened out based the fact that it is out preformed at a similar cost by powered Levels with guidewall extensions. On the surface, ISH appears to provide significant benefits to reduce congestion. However, considering the variables involved, the successful implementation of ISH as a standard operating procedure is not viable as a long term solution.

BOBBY R. HUGHEY, P.E. *Chief Design Branch, St. Louis District.*

Subscribed and sworn to before me this 29 day of February, 2000.

WILLIAM P. LEVINS,
Notary Public, State of Missouri, City of St. Louis.
My Commission Expires May 2, 2003

TAB F

BEFORE THE UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS AFFIDAVIT OF HARRY E. KITCH

Pursuant to 28 U.S.C. 1746, the undersigned hereby executes the following sworn statement under penalty of perjury.

1. I, Harry E. Kitch do hereby declare that I have been employed by the U.S. Army Corps of Engineers for over 28 years, and currently serve as the Chief, Formulation and Evaluation Branch, Planning Division in the Directorate of Civil Works, Headquarters, U.S. Army Corps of Engineers.

2. Although I have not been actively involved in the Upper Mississippi River Navigation System study for over a year, on February 4, 2000 I attended a meeting with MG Van Winkle, Dave Sanford, and Fred Caver because my supervisor, Dr. Jim Johnson was TDY in Oxnard, California and I was taking notes on his behalf. I prepared an electronic mail message to Dr. Johnson summarizing that meeting so that he would be prepared for any meetings which might occur the following week. The statement in my message that "We are the navigation proponent and we can't

have a limpwristed recommendation saying to build something out in 2025" is my best recollection of what was said by MG Van Winkle during that meeting. MG Van Winkle would have to say what he meant by that statement, I was merely taking notes of what was said so that I could accurately reflect, for the benefit of my supervisor, the results of that meeting. The statement in my message that "Concern was expressed that if we don't provide for the industry, navigation program might get moved to DOT" is my best recollection of what was said by either Mr. Sanford or Mr. Caver during the meeting. I interpreted this statement as merely restating something that I had heard several times over the past couple of years that the navigation program could be moved to the Department of Transportation.

I declare under penalty of perjury under the laws of the United States of America that the foregoing statement is true and correct to the best of my knowledge.

HARRY E. KITCH

Subscribed and Sworn To Before me in the District of ColumbiA, on this 3rd Day of March, 2000.

BARBARA J. DAVIS
Notary Public,
My Commission Expires: June 14, 2001.

TAB G

I Jeffrey Marmorstein, being of legal age and under no legal disability, hereby state that the following is a true statement of facts to the best of my recollection and knowledge.

On the evening of February 3, 2000 I was called at home by Mike Grunwald a reporter from the Washington Post. I gave him some information regarding my position with the Corps of Engineers and work history. I informed him that I was speaking entirely as a private citizen and in no way represented the Corps of Engineers. Further I informed him that I would not discuss the technical aspects nor offer an opinion on the results of the Navigation Study.

He asked me if I had seen an affidavit prepared by Don Sweeney. I told him that I had. He further asked me if it "really happened". I answered that, as far as I knew, it was an accurate statement. When he asked me about Don Sweeney I made several complimentary remarks including that "Don was the most talented public employee I had ever met" and that while he was Technical Manager for the Economics on the Navigation Study his only motivation was to provide the most objective and accurate analysis possible.

Mr. Grunwald asked my opinion about management changes that have taken place in the Corps. I gave him my honest opinion that, I believe, included the quoted statement "unfortunately Corps' management has lost all respect for unbiased analysis".

Further I told him, according to my own notes, that "It is very sad that this, largely successful study effort, is in danger of becoming just another Corps of Engineers embarrassment" and "It is regrettable that Corps' management has so effectively shut down all avenues of dissent that these issues, which should and could be resolved within the agency, must be made public".

The quoted statement "It's very sad that this study is becoming another embarrassment" was in reference to the apparent publicity that the story was going to receive and the public questioning of the Corps' integrity.

JEFFREY MARMORSTEIN, *Operations Research Analyst*

Subscribed and sworn to before me on this 29 day of February, 2000.

WILLIAM P. LEVINS,
Notary Public, State of Missouri, City of St. Louis,
My Commission Expires May 2, 2003

TAB H

BEFORE THE UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS AFFIDAVIT OF COLONEL JAMES V. MUDD

Pursuant to 28 U.S.C. 1746, the undersigned hereby executes the following sworn statement under penalty of perjury.

1. I, James V. Mudd, am an officer on active duty with the U. S. Army and currently hold the rank of Colonel. I presently serve as the District Commander and District Engineer of the Rock Island District Corps of Engineers. I have served in this post since July 1997. Relative to the Upper Mississippi River-Illinois Waterway navigation system study, I hereby depose and say:

2. As District Commander, I have general oversight and leadership responsibilities with regard to every study being conducted within the Rock Island District, including the Upper Mississippi River-Illinois Waterway navigation system study (UMRS). In this position, I receive information and assistance from individuals in the Corps' various disciplines, including engineering, planning, economics, and the environmental sciences. In the case of the UMRS, individuals in these fields from both inside and outside the Corps have been extensively involved in all aspects of the study process.

3. With respect to the elasticity of demand for waterborne commercial transportation, over the course of the UMRS, the study team has expended considerable effort to determine the most appropriate value (the "N" value) to use in regard to grain.

The UMRS team has evaluated information representing a wide range of values generated by numerous sources, including Corps economists, contractors, navigation users and shippers, and academic researchers. The N value of 1.2 for grain incorporated into the preliminary economic evaluations presented to the public at various workshops during the summer of 1999 was a weighted average using information from the August 1998 expert elicitation panel and the 1994 Iowa Grain Flow Survey. The expert elicitation panel was composed of experts and economists from the Iowa Department of Agriculture, the University of Minnesota, Texas A&M University, North Dakota State University, and industry. The panel concluded that the N value for grain ranged between 1.0 and 2.0 in the Upper Mississippi region. Accordingly, the UMRS study team used this as a basis to define limit values.

4. Using a methodology developed in discussions among myself and other members of the staff, the information from the expert elicitation panel was used to identify each end of the range of possible N values, while information from the Iowa Grain Flow Survey data was used to develop the distribution curve of grain moving to and on the Mississippi River. Subsequently, New Orleans District economist Richard Manguno, at my direction, calculated the N value for grain for the above methodology. I did not set a predetermined N value of 1.2; nor did I ask anyone to skew or falsify any economic data or assumptions. He assigned the limit N value of 1.0 (the relatively more inelastic N value) to the eastern region, which is the region closest to the river, and the limit N value of 2.0 (the relatively more elastic N value) to the western region, which is the region farthest from the river. He assigned the mid-point of the N value range, i.e., 1.5, to the central region.

5. Data from the 1994 Iowa Grain Flow Survey, which described the proportion of each region's corn production that moved to the river, was then used by Mr. Manguno to assign weights to the crop reporting regions. He converted these proportions to weights (proportions of total river originating from each region—0.69, 0.21, and 0.10, respectively, for the eastern, central, and western regions) and assigned them to the appropriate region. With assigned N values and weights for each region, Mr. Manguno then calculated the overall weighted average. The weighted average that resulted from the calculation was applied to all grain movements shipped from all origins.

6. As noted above, the N value of 1.2 was used by the Corps' study team in preliminary economic evaluations presented to the public during the summer of 1999. It was the result of information provided by Corps economists, Corps contractors, navigation users and shippers, and academic researchers and is based on a reasoned methodology. Prior uses of elasticity values for grain used in the study model, on the other hand, were strictly theoretically based (not based on empirical data). Finally, in regard to any contention that the value is too low (i.e., inelastic), it should be noted that at least one authority, Dr. Robert J. Hauser, Professor and Head of the Department of Agriculture and Consumer Economics at the University of Illinois, Urbana-Champaign, has provided an expert opinion supporting lower elasticity factors than currently reflected in the analysis. His opinion and the study underlying it (see attached) are still being analyzed.

7. In regard to the allegation of disbanding of the economic panel, the panel was originally established for a 90-day period with responsibility for the identification of the NED Plan and the producing of the economic tools sufficient to analyze additional alternatives (July 1998-September 1998). The results of the panel's work would be used to brief the Director of Civil Works in Washington, D. C. At the conclusion of that period, MVD Commander MG Philip Anderson asked that the panel continue under the direction of New Orleans District economist Richard Manguno.

During the subsequent months there was significant input from HQ USACE, CELRD, the five states in the study area, industry, and the expert elicitation panel. In June 1999 the panel was asked to provide input and commentary on the economic conclusions that had been completed to date. The decision to release the economic panel members to return to their regular duties was made by MG Anderson in July 1999. My understanding is that this decision was based on MG Anderson's determination that it was no longer necessary to continue the panel since it had completed its function. I understand that he determined that the production of future economic products would be the responsibility of the study team with Mr. Manguno leading the economic work group.

I declare under penalty of perjury under the laws of the United States of America that the foregoing statement is true and correct to the best of my knowledge.

JAMES V. MUDD, *COL, EN, Commander, Rock Island District.*

Subscribed and Sworn To Before me in the District of Columbia, on this 2nd Day of March, 2000.

BARBARA J. DAVIS,
Notary Public,
My Commission Expires: June 14, 2001.

ATTACHMENT 1

STATEMENT ON BARGE DEMAND ELASTICITIES FOR GRAIN, ROBERT J. HAUSER PROFESSOR AND HEAD DEPARTMENT OF AGRICULTURAL AND CONSIGNER ECONOMICS UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

July 22, 1999

This statement concerns the estimate for the barge-rate elasticity of demand for grain shipments on the Upper Mississippi and Illinois Rivers used by the Corps of Engineers in its evaluation of various navigation-related projects. My understanding is that the most recent estimate of elasticity used by the Corps is approximately three. (Demand elasticities referred to in this statement will be in absolute (positive) terms.)

Since farm products account for the majority of the traffic on the Upper Mississippi and Illinois Rivers, assessments of navigation benefits and costs rely heavily on the underlying barge demand elasticities for corn and soybean shipments. In analyses conducted by the Corps, if the estimated demand elasticity is too high, waterway navigation benefits will be understated; if too low, the resulting benefits will be overstated. Thus it is important that (1) the general level of the elasticity be considered carefully, (2) differences in elasticities between river segments be considered, (3) a reasonable range of potential elasticities be considered, and (4) the sensitivity of the project-evaluation results to changes in the elasticity be measured. I will address points 1 through 3, based on a study conducted during the 1980's by Hauser, Beaulieu, and Baumel (HBB)[1].

HBB measured impacts of alternative waterway user fees. The 1980 transportation rate structure for rail, barge and truck was used to estimate user-fee impacts given forecasts of 1985 supply/demand conditions for grain. The EBB grain-flow projections were found with an optimization model containing over 11,000 alternatives for shipments of corn, soybeans, and wheat in the U.S., expressed In over 3,000 equations. A base line solution (in terms of grain flows and attendant transportation costs) was found under the 1980 rate structure. The impacts of user fees were then assessed by measuring changes in grain flows and costs caused by imposing user fees (i.e., changing barge rates.) An important output of the analysis are estimates of own-price elasticities for grain barge shipments since the change in barge rate causes a measurable change in barge shipments, enabling the calculation of elasticity estimates. Resulting estimates are presented in Table 1.

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[1] Hauser, Robert J., Jeffrey Beaulieu, and C. Phillip Baumel. "Impacts of Waterway User Fees on Grain Transportation and Implied Barge Rare Elasticines," Logistics and Transportation Review, 21(1985), pp 37–55. Funded by U.S. Dept of Transportation, Contract DTRS-57–8C-00133.

NOTE: The article from Logistics and Transportation Review referenced in Footnote 1 was attached to the affadavit at this point. It is retained in committee files.

Table 1.

Estimated Barge Demand Elasticities for Grains (HBB)

	Barge Demand Elasticity	
	Fuel Tax	Segment Tax
Upper Mississippi River	2.09	2.10
Illinois River	1.07	0.92
All River Segments	1.62	1.48

As indicated in Table 1, the barge demand elasticities for grain (corn, soybeans and wheat) found by HBB for the Illinois River, the Upper Mississippi River, and the entire system are well below the demand elasticity of 3.0 currently implied by the Corps' shipment demand function for grains. Moreover, the degree of difference depends on the river segment. Because of its location relative to other rivers and to production, the Illinois River's elasticity is approximately half that for the Upper Mississippi River. Consequently, the HBB analysis suggests that using a single transportation demand elasticity for all waterways is not appropriate.

HBB note that their analysis is a "snapshot" of demand characteristics chat change from year to year, if not from day to day. In general, the barge rates used in the HBB analysis are higher than those which have existed since the study was conducted, implying that, under a stationary and linear demand, elasticities have fallen since the early 1980's and that the HBB estimates are probably biased upwards, indicating further that the Corps estimate is relatively high.

Given the HBB analysis, the Corps' elasticity estimate should be considered, at best, an upper bound for analysis. Lower bounds could reasonably be defined well below one. Given this type of range, an important question becomes: how sensitive are the Corps' findings to changes in elasticity estimates from, say, 0.5 to 3.0? Consideration of this question by river segment is critical to providing a sound assessment of the benefits and costs associated with new projects on the inland waterway system.

Your consideration of this statement is appreciated.

TAB I

I Lenard H. Ross, being duly sworn under oath, being of legal age and under no legal disability, do hereby state that the following is a true statement of facts according to my recollection and knowledge:

In response to question No. 7

In writing "getting to yes as soon as possible" I was referring to actions to reduce the normal ten plus years it takes to get a project from the study phase to the construction phase. Such actions include working issues in parallel rather than in series, anticipating funding needs and working harder, faster and smarter.

In writing "study managers not take no for an answer" I was referring to the roadblocks and delays encountered by study managers. Many of which are internal Corps policies and procedures. Study managers are encouraged to look for ways to work around a problem not give up.

LENARD H. ROSS *Chief, Construction Branch Construction-Operations, Readiness Division.*

Subscribed and Sworn to before me this 29th day of February, 2000.

WILLIAM P. LEVINS,
Notary Public, State of Missouri, City of St. Louis.
My Commission Expires May 2, 2003.

TAB J

BEFORE THE UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS AFFIDAVIT OF DAVID B. SANFORD, JR

Pursuant to 28 U.S.C. 1746, the undersigned hereby executes the following sworn statement under penalty of perjury.

1. I, David B. Sanford, Jr. do hereby declare that I am an employee of the U.S. Army Corps of Engineers, and currently serve as the Chief, Policy Division in the Directorate of Civil Works, Headquarters, U.S. Army Corps of Engineers.

2. Question 2 relates to a February 4, 2000 memo which contains the statement "concern was expressed that if we don't provide for the industry, navigation program might get moved to" Department of Transportation. I interpreted this statement as meaning that if the Corps could not produce a study, with recommendations (whether or not the recommendations supported lock expansion), then the navigation industry group (MARC2000) might seek assistance from the Department of Transportation. I declare under penalty of perjury under the laws of the United States of America that the foregoing statement is true and correct to the best of my knowledge.

DAVID B. SANFORD, JR.

Subscribed and Sworn To Before me in the District of Columbia, on this 3rd Day of March, 2000.

BARBARA J. DAVIS,
Notary Public,
My Commission Expires June 14, 2001.

TAB K

AFFIDAVIT, STATE OF ILLINOIS, COUNTY OF ROCK ISLAND

I, Paul D . Soyke, am employed by the Rock Island District of the United States Army Corps of Engineers as the Chief, Economic Analysis Branch in the Program & Project Management Division. I also was a member of the Economics Panel for the Upper Mississippi River-Illinois Waterway System Navigation Study. Relative to Question No. 9 in the February 28, 2000 letter fro m Senator Voinovich to LTG Ballard, I hereby depose and say:

The quote, "The team should determine an alternative . . . that appears to be the most likely to justify large-scale alternatives in the near-term" was made by me, a member of the Economic Panel on September 3, 1998. The statement was made in reference to the testing of the economic model and its sensitivity to various parameters. The reference was to only one of a number of alternatives that should eventually be tested. I sent an e-mail (attached) later the same day to all the recipients clarifying the intent after receiving comments. This later e-mail states, "If my message was interpreted to indicate that 'our recommended alternative will be determined based on assumptions that appears most likely to justify large scale alternatives in the near term', I apologize. I think we owe it to the decision-makers, our partners, and ourselves to know 'what it takes to justify a project'. That is a part of sensitivity analysis." This was not a decision or command to manipulate the model or study results, but instead was part of an effort to better assess the model and its sensitivity to many parameters that were not known with certainty.

In witness whereof, I have set my hand this 1st day of March 2000.

PAUL D. SOYKE,

Subscribed and sworn to the undersigned, a notary public, in and for the State of Illinois, County of Rock Island, this 1st day of March 2000.

AIMEE D. VERMEULEN,
Notary Public, State of Illinois,
My Commission Expires 01/15/03.

ATTACHMENT 1

Soyke, Paul D MVR

From: Hanson, Dudley M MVR
Sent: Friday, September 04, 1998 7:41 AM
To: Soyke, Paul D MVR
Subject: RE: Alternative scenarios

Paul, Please don't feel any need or pressure to respond to HO. MVD will do that as needed, or task us to do it.

----Original Message----

From: Soyke, Paul D MVR
Sent: Thursday, September 03, 1998 2:21 PM
To: Conner, Ronald R HQ02, Karnish, Diane MVS; Hanson, Dudley M MVR; Hammond, Mark R LRH01; Manguno, Richard J MVN01; Walker, Wesley W LRH01; Arnold, William E MVD01; Sweeney, Donald C II MVS; Carr, John P MVR; Mcdonald, Jesse K MVD01
Cc: Daniel, Robert M HQ02; Kitch, Harry E HQ02
Subject: RE: Alternative scenarios

I'm sorry that I was not clear. Don is working on the "without" condition and a preliminary NED with as given set of assumptions. As I understand, there are alternate assumptions that can be made. In order to provide as much information as possible, MVD has asked that we look at what the output of these alternative assumptions might be. The primary goal is the preliminary NED. If my message was interpreted to indicate that "our recommended alternative will be determined based on assumptions that appears most likely to justify large scale alternatives in the near term", I apologize. I think we owe it to the decision-makers, our partners, and ourselves to know "what it takes to justify a project". That is a part of sensitivity analysis.

-----Original Message----

From: Conner, Ronald R HQ02
Sent: Thursday, September 03, 1998 1:59 PM
To: Soyke, Paul D MVR; Karnish, Diane MVS; Hanson, Dudley M MVR; Hammond, Mark R LRH01; Manguno, Richard J MVN01; Walker, Wesley W LRH01; Arnold, William E MVD01; Sweeney, Donald C II MVS; Carr, John P MVR; Mcdonald, Jesse K MVD01
Cc: Daniel, Robert M HQ02; Kitch, Harry E HQ02
Subject: RE: Alternative scenarios

Folks

Would someone like to explain to me what exactly I've missed. In the Tuesday meeting with Dusty, I heard explicit direction that a preliminary NED will be presented by 17 Sept. Which, as I understand it, is the way the 90-day process was sold to HO. Is that still the case or are we presenting a range of scenarios which will take to the GLC and the public to help us decide the NED? Given that changes must be made to the SEM to account for the new small-scale/without project, do you have time to run these alternate scenarios before Sept 17. Why not identify a prelim NED based on the current assumptions, then run alternate scenarios as sensitivity analysis prior to meeting with the GLC and public? Also as a further suggestion, avoid sending E-Mails around which suggest our recommended alternative will be determined based on assumptions that appears most likely to justify large scale alternatives in the near term. Regardless of what you decide to do, I need to see a summary or minutes from the teleconference or meeting I missed to report up the chain. Thanks.

Ron

-----Original Message-----

From: Soyke, Paul D MVR
Sent: Thursday, September O3, 1998 11:39AM
To: Diane Karnish; Dudley Hanson; Hammond, Mark R LRH01; Manguno, Richard J MVN01; Walker, Wesley W LRH01; Arnold, William E MVD01; Donald Sweeney; John Carr; Mcdonald, Jesse K MVD01; Ronald Connor
Subject: Alternative scenarios

Dudley suggested that I send my thoughts to all of you and get your comments and ideas. It is important to reduce the amount of work required while still trying to get the options desired by MVO. Until the without project condition is complete, it is difficult to predict which set of assumptions will most productive. Rich and Jack will be in St. Louis on Tuesday to provide assistance in running the options. They need the flexibility to make the week productive.

Please give me your comments by noon Friday on the following suggestions.

Based on the teleconference yesterday and Jesse's proposal, I am offering the following suggestions:

There should be a scenario based on a high (tripling of grain exports by 2050) commodity forecast with demand functions for grain of 1.0 and 0.5 for all other. This

is similar to Alt. 3 from Jesse. There should also be one using 1.0 for all commodities and the midline forecast. The team should then determine an alternative, based on these results, that appears to be the most likely to justify large scale improvements in the near term. This alternative should use conditions and assumptions that are within the range of the information available that could be within some reasonably likely future.

These alternatives would seem to bound the options and allow us to work with the GLC and the public to determine acceptable limits and levels of confidence of the assumptions. Based on the results and those discussions, I would suspect that we could then do further runs and determine a recommended plan.

I believe that the team in St. Louis next week should be given the flexibility to include or delete the IWW locks if the initial runs indicate that this would impact the results.

TAB L

BEFORE THE UNITED STATES SENATE COMMITTEE ON THE ENVIRONMENT AND PUBLIC WORKS AFFIDAVIT OF MAJOR GENERAL HANS. VAN WINKLE

Pursuant to 28 U.S.C. 1746, the undersigned hereby executes the following sworn Statement under penalty of perjury.

1. I, Hans A. Van Winkle, do hereby declare that I am a Major General in the United States Army currently serving, since June, 1999, as Deputy Commanding General for Civil Works of the U.S. Army Corps of Engineers, and stationed at its Headquarters in Washington, D. C.

2. This affidavit is being prepared in response to written questions presented by Senator George V. Voinovich, Chairman, Subcommittee on Transportation and Infrastructure of the Senate Committee on Environment and Public Works. The Senator's letter and questions relate to the Corps' Upper Mississippi River-Illinois Waterway Navigation Study. Question 1 in Senator Voinovich's letter referred to a meeting I attended on February 4, 2000. The question asked that I explain what I meant by a statement attributed to me in an e-mail message, dated February 4, 2000, and written by another attendee at that meeting, Harry E. Kitch (hereinafter the HKitch e-mail"). The statement which I have been asked to explain was presented as follows: " we are the navigation proponent and we can't have a limp-wristed recommendation saying to build something out in 2025". In addition, question 2 in Senator Voinovich's letter asked that the participants in the February 4, 2000 meeting interpret another statement in the "Kitch e-mail". As presented by Senator Voinovich the statement read that "'concern was expressed that if we don't provide for the industry, navigation program might get moved to' the Department of Transportation". This statement was not attributed. I will respond to both questions.

3. At the outset, I state that at the times and events addressed in this affidavit I was unaware that Dr. Donald Sweeney was in the process of or had prepared an affidavit concerning the Upper Mississippi River Study.

4. With respect to Senator Voinovich's Question 1, I made the statement, or a substantially similar statement, attributed to me, in the following context and with the intent set forth below.

5. I made the statement at a meeting held on February 4, 2000. While I cannot attest to the word for word accuracy of the quoted statement, since I did not take any notes, nor had an official note taker been designated, the statement is generally accurate. The statement was made in the informal give and take of this meeting among my senior advisors and myself The statement simply expressed my frustration at the status of the Study at that time. After expending 7 years and $50 million dollars, we were not able to yet finalize all elements of the array of alternatives identified in the Study. Among my frustrations was the fact, as I understood it, that some of the proposed alternatives, if adopted, would require even more study and the expenditure of additional funds before being able to fully implement them. In my opinion, the Corps of Engineers, as an expert on the Nation's inland waterway system, ought to be able to make firm proposals or recommendations, based upon sound, comprehensive data and analysis. Those proposals or recommendations should be implementable without endless study. In this case, in part,

I was questioning whether proposals or recommendations requiring or anticipating yet more study were warranted or justified. Also expressed in that statement is my view that the Corps is the Federal agency responsible for examining options for the development, management, and conservation of our Nation's water resources with the objective of providing the Administration and the Congress with balanced

choices for the future. Just as the Department of Transportation is the "proponent" in these respects for surface transportation systems, the Corps, in my opinion, is such for our Nation's waterways.

6. The February 4, 2000 meeting was a follow-up meeting to a prior briefing I had received about the Study. The prior briefing, held on January 28, 2000, led by the Corps' Mississippi Valley Division (MVD), was by Video Teleconference (VTC). This was my first briefing on this Study since I assumed my duties as the Deputy Commanding General for Civil Works of the U.S. Army Corps of Engineers in June, 1999.

7. Based upon the VTC briefing, I had some questions and concerns, principal among which were two. First, I wanted to assure myself that extending 600 foot locks, to 1200 feet, as MVD proposed, was a sound recommendation. The current locks average 50 years old, and building extensions to these aging structures added an element of engineering risk. Second, I had questions about the "optimally timed" project alternatives identified in the Study. Members of my staff also had questions about the MVD presentation.

8. Because of these questions and concerns, I convened the February 4, 2000 meeting previously discussed. Attendees at this meeting included Mr. Thomas F. Caver, the Corps' Chief, Civil Works Programs Management Division, Mr. David Sanford, the Corps' Chief, Civil Works Policy Division, Mr. Harry E. Kitch, representing the Corps' Chief, Civil Works Planning Division who was not available for the meeting, and myself. Though the others had been participants in the January 28,2000 VTC, Mr. Kitch had not. At this meeting, my staff recommenced that we undertake an Alternative Formulation Brief (AFB). I concurred. The AFB is standard procedure that would allow us to address my questions, and others. Completion of the AFB and presentation of its conclusions is expected in early March 2000.

9. With respect to Senator Voinovich's Question 2, the comment, as I interpreted it, reflected how the navigation and agricultural industries felt about working with the Corps of Engineers. On this project, these interest groups had complained that the Corps had rejected their data and input, that the Corps process was not inclusive, and that reasonable assumptions and data were not being treated in a fair and reasonable way. In short, I understood the comment to highlight a concern that this Study process be inclusive and fair. I do not recall how this issue was raised at the meeting.

MAJOR GENERAL HANS A. VAN WINKLE

Subscribed and Sworn To Before me in the District of Columbia, on this 3rd Day of March, 2000.

BARBARA J. DAVIS,
Notary Public,
My Commission Expires: June 14, 2001.

US Army Corps of Engineers®

CIVIL WORKS PROGRAM
SATISFYING NATIONAL NEEDS

Briefing for the BOD

1 March 2000

1

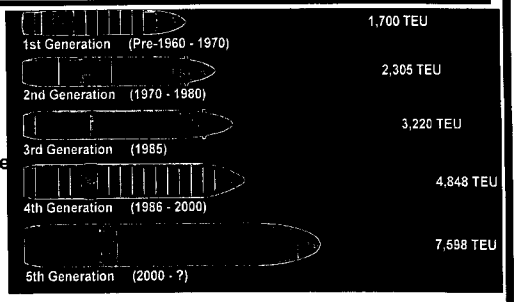
SATISFYING NATIONAL NEEDS

WHAT IS THIS ALL ABOUT?

2

National Challenge:
Stress on National Maritime Transportation System

- MTS contributes 8% of GDP
- System nearing capacity but commerce to triple by 2020
- Already a generation behind in channel design
- Capacity constraints increase transportation costs, pollution, congestion, etc. (e.g., 1 tow = 870 trucks)
- Increased dredged material disposal presents both a problem and opportunity



Trends in Containership Growth

National Need

A strong environmentally sustainable maritime transportation system

Investment Required: $14.7 B

3

National Challenge:
Continued Development of Flood-Prone Areas

- $4+ billion annually in residual damages
- Urban expansion into floodplain, uplands continues
- Rapid population growth into coastal areas
- Fragmented and contradictory floodplain management policies across agencies

Greenville, NC: The Tar River still has communities swallowed in its flooding waters as shown here in Pactolus, just north of Greenville. This family can only reach their flooded home by boat.

Photo by Dave Gately/FEMA News Photo

National Need

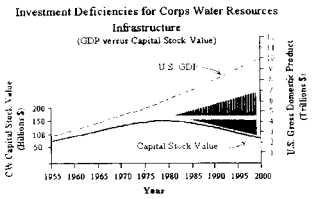
Reduce the negative consequences of flooding

Investment Required: $5.5B/yr

4

National Challenge:
An Aging National Water Resources Infrastructure

- Investments in water resources Infrastructure have declined
- Aging infrastructure leads to performance and customer satisfaction problems, increased vulnerability of infrastructure
  - $800 million Federal backlog for Recreation facilities - inadequate maintenance, not up to current user demands
- Corps infrastructure:
  - 49% of lock chambers and 29% of dams are 50+ in age
  - O&M backlog of $1.6B doesn't provide needed maintenance to prolong life of infrastructure



The gap is growing

National Need

A High-Performance Infrastructure

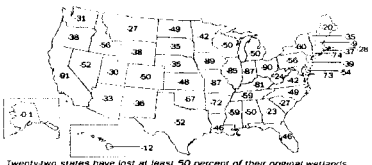
Investment Required: $30B

5

National Challenge:
Environmental Consequences of Past Development

- Loss of 117M acres of wetlands
- Lost or endangered species (about 600 species)
- 20,000 km of U.S. streams and rivers are impacted by acid mine drainage
- 450,000 brownfield sites
- Some projects are out of sync with public values

Percentage of Wetlands Acreage Lost, 1780's-1980's



Twenty-two states have lost at least 50 percent of their original wetlands. Seven states—Indiana, Illinois, Missouri, Kentucky, Iowa, California, and Ohio—have lost over 80 percent of their original wetlands. Since the 1970's, the most extensive losses of wetlands have been in Louisiana, Mississippi, Arkansas, Florida, South Carolina, and North Carolina.

Source: Mitch and Gosselink, Wetlands, 2nd Edition, Van Nostrand Reinhold, 1993

National Need

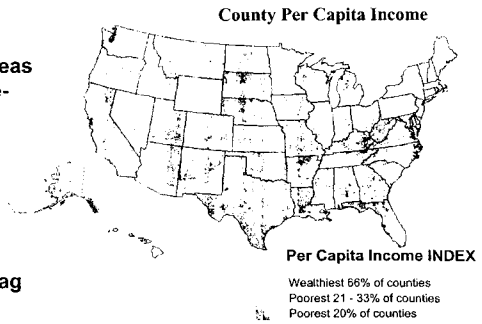
Healthy Environment Providing Economic, Ecosystem, Social, Cultural Benefits

Investment Required: $3 - 5B/yr.

6

National Challenge:
Leveraging Water Resources for Smart Growth

- Aging water resources infrastructure in urban areas limits opportunities for re-development
- Non-point source runoff degrades water quality
- Potential shortages in W, SW, SE result from unplanned growth
- Rural development may lag from lack of water conveyance infrastructure



National Need

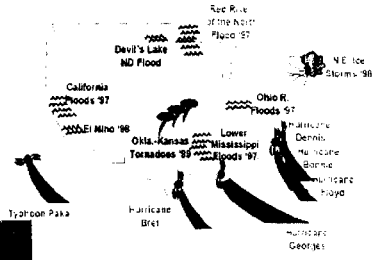
Water in Sufficient Quantity and Quality for Smart Growth

Investment Required: $3 - 5B/yr.

7

National Challenge:
Ensuring Capability to Respond to Disasters

- 879 major U.S. disasters 1972-1998
- 7/10 most costly U.S. disasters occurred between 1989-1994
- 44 $1B+ disasters 1980-1999
- Population shifts to at-risk coastal areas
- Climate variability, from regional droughts to floods



Greenville, NC. The livestock loss and potential health hazard to Eastern North Carolina is huge. Here volunteers have towed in dead and floating cattle from a nearby ranch at Pactolus, NC (just North of Greenville), trying to remove them as fast as possible to lower the potential health hazards associated.

Photo by Dave Gatley/FEMA News Photo

National Need

Quick and Effective Emergency Response

Investment Required: $150M/yr.

8

SATISFYING NATIONAL NEEDS

COMPONENTS

- Strategic Plan
- White Papers
- Listening Sessions
- Communications
- Legislative Program

9

STRATEGIC PLAN

- Institute for Water Resources Developed First Draft
  - 18 February 2000
- Addresses National Needs
- To be Vetted with Stakeholders
  - Congress
  - Administration
  - Interest Groups

10

WHITE PAPERS

- One for each of the Six National Challenges
- Developed by Institute for Water Resources based on Findings of National Needs
- Basis of Draft Strategic Plan
- To be Used as Basis of Presentations and Speeches by Corps Representatives

11

LISTENING SESSIONS

- Objectives:
  - Begin dialogue with key stakeholders on the 6 national water resources challenges, how the Federal government can help address needs and identify solutions
  - Provide information/education about specific water resources needs
  - Energize participants to pursue national/regional solutions
  - Provide report: Public perception of national (regional) water resources challenges and approaches

12

LISTENING SESSIONS
JOIN THE DIALOGUE

- At Least One in Each MSC
- National Session in Washington
- March - September
- National Professional Facilitator
- Corps Listens

2

Conner, Ronald R HQ02

From: Kitch, Harry E HQ02
Sent: Friday, September 25, 1998 2:57 PM
To: Hanson, Dudley M MVR
Cc: Barry Kennedy; George Fach; Norman Edwards; Robert Daniel; Ronald Connor
Subject: RE: UMR-IWW-SNS Navigation Study

Dudley,
Not sure what version of mine you are referring to. I didn't send out any minutes / notes on meeting. I just summarized what I thought the meeting was to cover on the 20th. But some quick, Friday afternoon thoughts on what we believe the direction from the meeting was.

1) The director noted the Tenn-Tom projections which is absent from the memo. Since he mentioned it, we can infer that he is not willing to accept unrealistic assumptions to justify projects.

2) I don't recall anyone specifically saying "There is a need to improve the system."

3) I don't recall anyone saying "If the demand curves, traffic growth projections, and associated variables that the economics model can consider, do not capture the need for navigation improvements, then we have to figure out some other way to do it." A better interpretation of what was said was to go back and figure out what is the most reasonable set of assumptions to use in analyzing the system in the NED context, then on a separate level build a case (let's call in the "advocacy" argument) based on other factors such as national competitiveness, balance of payments, and well being of the Midwest region.

4) I don't recall MG Fuhrman directing that we develop evidence or data to support a defensible set of capacity improvement projects specifically. Again there should be a distinction between the NED analysis and the "advocacy" argument. I don't recall MG Fuhrman asking what drives up the benefits on the high side, everyone already knows what assumptions drive up benefits.

5) Based on the commodity forecast report, which has been blessed by HQUSACE, and ITR'd, the high forecast has a 95% probability of overstating movements. We don't want to use that without real strong justification. (Remember Ten-tom). What were the uncertainties in the report that could be used to tell a story to use something other than the mid-range?

See some more thoughts inserted in your message.

-----Original Message-----
From: **Hanson, Dudley M MVR**
Sent: Friday, September 25, 1998 2:10 PM
To: Kitch, Harry E HQ02
Subject: RE: UMR-IWW-SNS Navigation Study

Harry, this is very important that we not go the wrong direction. We need unequivacal command instructions. The version you sent out doesn't really change anything from what we've been doing, just keep doing it for three more weeks, after 5 years of doing it. The version I sent out tried to dig into what the Director was really saying, implicitly as well as explicitly. As you can tell, I'm a little frustrated. Word we get from New Orleans is that the Director told an audience there (don't know how many heard this) that we will have lock extensions to 1200' in the near term. I request (unofficially, of course) that CECW issue a clear summary of what the Ddirector's instructions are to MVD, because I (and others involved) have orders to step out smartly NLT COB today. Weekends are used in this endeavor as well as weekdays, so something today would gain us two days relative to something on Monday.

Thanks,
Dud

-----Original Message-----
From: Kitch, Harry E HQ02
Sent: Friday, September 25, 1998 12:37 PM
To: Hanson, Dudley M MVR
Subject: RE: UMR-IWW-SNS Navigation Study
Importance: High

Dudley,

Quite a message. I read it to say that we have to do what ever it takes to justify locks. Don't worry about the P&G analysis ("analytical process") just tell a good story ("subjective approach"). That's not the way I heard the Director.

Harry

-----Original Message-----
From: **Hanson, Dudley M MVR**
Sent: Friday, September 25, 1998 12:53 PM
To: Manguno, Richard J MVN01
Cc: Mudd, James V MVR; Rhodes, George MVD; Soyke, Paul D MVR; Kincaid, Teresa A MVR; Lundberg, Denny A MVR; Tipple, David A MVR; Barr, Kenneth A MVR; Thompson, Bradley E MVR; Gmitro, Mark D MVR; Sweeney, Donald C II MVS; Carr, John P MVR
Subject: UMR-IWW-SNS Navigation Study

Rich; The information below describes the task that you, as leader of the economics work group on the subject study, have before you. This has been sent around to many of the people who were in attendance, and others as well. I ask all addressees of this message to read it carefully to determine if this is sufficiently accurate to serve as a scope of work for Rich. If not, reply to all ASAP, please. We are ready to help, Rich, just say the word about what and who you need and where and when to be. In anticipation of the need, I have asked folks tp work on the rationale that relates the directed enhancements to plausible world conditions that will underlie the need for those enhancements, to be developed qualitatively and then quantitatively using our analytical tools. Dudley

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Briefing of MG Fuhrman and staff: Guidance Received 23 September, 1998

Introduction:

MG Fuhrman, the Director of Civil Works, and key members of his staff, were briefed by MG Anderson, MVDDE, COL Mudd, MVRDE, and their respective staffs on key elements of the study on Wednesday, 23 Sep.

MG Fuhrman met recently with the US Department of Agriculture. He said that the DoAg is concerned about water transportation. (Our quick review of parts of their report gives no indication of as strong a case as they must have given him in the meeting. And we need to discuss that with him.)The DoAg has taken the position that the United States needs to be able to move more grain by water when the market opens. MG Fuhrman said his gut tells him that's the right perspective for the Corps to have.

We, the Corps, are the Federal Government's advocates for inland waterways. There is a need to improve the system. The well being of the Midwest depends on agricultural exports. We need to figure out what the demand curves mean. If the demand curves, traffic growth projections, and associated variables that the economics model can consider, do not capture the need for navigation improvements, then we have to figure out some other way to do it. (See above comment) Use data from the DoAg if necessary (See previous comment on their report) This is a national policy issue. We

need to articulate the value of the inland navigation system, particularly the UMR, in terms of balance of payments and our competitive position. We need to develop a rationale for taking this relatively more subjective approach to our analytical process. (We have to provide information for the decision makers in addition to the analytical approach. [don't fudge numbers])

Guidance

MG Fuhrman will approve a schedule change. By the end of three weeks (next briefing to MG Fuhrman is on Oct 20 at noon, until 2:00 PM in the CW Conference Room), he directs that we develop evidence or data to support a defensible set of capacity enhancement projects. We need to know what the mechanism is that drives the benefits up. The rationale should err on the high side. (The costs of being too little or too late are probably larger than what might be wasted by being too early. But remember the Ten-Tom. Thus we need a good understanding of the uncertainties in the key variables. Also we need to have a good understanding of all the alternatives and our ability to implement (innovative techniques, etc))Provide one benefit curve not a range. (No, he wants a range but reasons for selecting one upon which to base conclusions and recommendations. This is supported by your next statement.)
Explain why we used the assumptions we did.
Explain the impact of water transportation on our world competitive situation. (FOB New Orleans for grain rather than some other country).
Provide the rational basis for enhancing the system capacity for the 21st Century.
Balance advocacy with environmental concerns.

U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

CW PROGRAM GROWTH INITIATIVE

New Budget Authority

Direct Civil Works Appropriations

U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

PROGRAM GROWTH

Demand for Civil Works Program

- Measures of Need
  - Currently Authorized Capital Investments:
    - Total Capability Expressed FY2000 $5.2 Billion
    - Backlog of Committed Construction $20.0 Billion +
    - Historical Portion of GDP (FY00 P.L.) $6.0 Billion
    - Spending peak FY78-80 (FY00 P.L.) $6.5 Billion
  - Backlog of Maintenance $1.6 Billion

U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

PROGRAM GROWTH

Demand for Civil Works Program

- **Measures of Need**
  - Average Annual Flood Damages: $4.0 Billion
  - Projected growth in Navigation Tonnages:
    - $1.2 Billion Tons 1997
    - $2.4 Billion Tons 2020
  - Lock Chambers:
    - 49 % have exceeded 50 year design lives
  - Wetland Losses:
    - 221 Million acres originally in Lower 48
    - 117 Million acres lost to date (-53%)
      - Area larger than the State of California
  - Water Supply: American River, ACT/ACF, Potomac Drought, Texas Senate Bill, Grand Prairie, Everglades, Rio Grande

U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

PROGRAM GROWTH

Demand for Civil Works Program

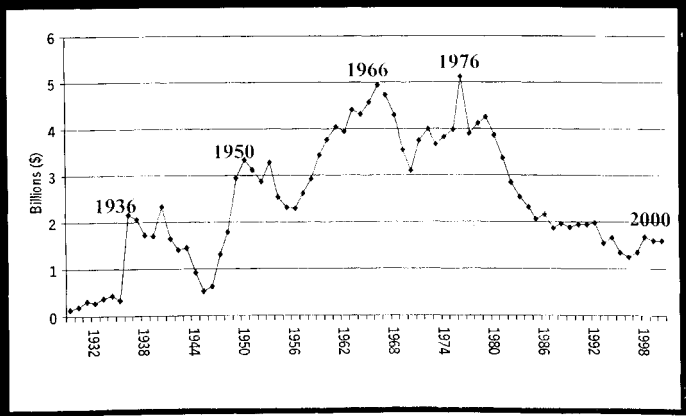
- **Measures of Need**
  - Recapitalize Existing Infrastructure
    $25.0 Billion reduction in value of capital stock since 1981
  - Future Requirements (i.e. Everglades, LA Coastal, Columbia Fish, Upper Mississippi River, Ohio River, NY/NJ)

U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

CIVIL WORKS CAPITAL INVESTMENT

New Work in Constant 1999 Dollars



U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

PROGRAM GROWTH

Ability to Grow

About $300 million per year in New Budget Authority for Direct Civil Works Appropriations w/o inflation (estimated capability + realistic expectation).

	FY00	FY01	FY02	FY03	FY04	FY05
W/O Inflation	$4.1B	$4.3B	$4.6B	$4.9B	$5.2B	$5.5B
W Inflation	$4.1B	$4.4B	$4.8B	$5.3B	$5.8B	$6.2B

U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

PROGRAM GROWTH

FY05 Targets by Account
(Dollars in Millions)

General Investigations	$ 260
Construction, General	$2,646
Operation & Maintenance, General	$2,322
FC, Mississippi River & Tributaries	$ 415
Regulatory Program	$ 150
General Expenses	$ 184
FUSRAP	$ 223
Total	$6,200

U.S. Army Corps of Engineers

PROGRAMS MANAGEMENT

PROGRAM GROWTH

Why $260 M GI Target in FY 05?

- A reasonable program tempered on past allocations.
- An executable program based on past performance.
- A program based on field submissions marked against recent appropriations.
- A program with targeted studies that should lead to target construction activities with continuation of historical success rates.

STATEMENT OF DOUG SUTHERLAND, COUNTY EXECUTIVE, PIERCE COUNTY, WASHINGTON

Mr. Chairman and members of the subcommittee: my name is Doug Sutherland. I am the County Executive for Pierce County, Washington. Thank you for the opportunity to testify on the Water Resources Development Act of 2000.

Pierce County lies along the eastern shore of Puget Sound and includes the city of Tacoma. The County includes the Puyallup and Nisqually Rivers, two of the 17 major river watersheds that comprise the Puget Sound basin.

I respectfully request that the Subcommittee authorize the Corps of Engineers to participate with local agencies in planning and implementing ecosystem restoration

projects in the Puget Sound region, as proposed in S. 2228 and the Administration's WRDA proposal. I recognize the many competing priorities that the Committee is facing in developing WRDA 2000, and know you will have difficult decisions to make about what to include in the bill. I'd like to relay why ecosystem restoration work in Puget Sound is a top priority to Pierce County and the Pacific Northwest, and why a major national commitment to the effort is warranted.

It wasn't long ago that you could walk or boat along any river in the Puget Sound basin in the fall or winter and be sure of seeing thousands of salmon, often so abundant that they filled every pool and riffle. As recently as the 1970's, it was possible to share the experience of the earliest settlers to our region, who wrote of salmon so thick that you could walk across their backs from bank to bank.

I'm sorry to say that these days, you could spend all day on one of the big salmon rivers of the region, including the Puyallup and the Nisqually in my county, and be lucky to see a hundred fish. The listings of chinook salmon and bull trout under the Endangered Species Act last year confirmed what every keen observer has witnessed for a decade: salmon are in steep decline in Puget Sound. A big run every few years and hopeful projections can no longer disguise the marked decline in salmon populations.

If this trend continues, it is not too difficult to imagine that 1 day in the not too distant future someone will witness the last salmon to swim in the Puyallup, the Skagit, or the Snoqualmie. If this occurs, we will have lost a resource of incalculable value: a cultural and social icon, an angler's once-in-a-lifetime prize, the catch of the day for a major tribal and commercial fishing industry. Imagine New England without fall colors, the Chesapeake without blue crabs, and California without the redwoods. Roll them into one, and you have some idea of Puget Sound without salmon.

We are committed to bringing Puget Sound salmon back from the brink. One of the prime reasons for the decline of salmon has been destruction of habitat from a century of agriculture and timber harvest, urbanization, flood control, and navigation projects. The result is a checkerboard landscape, where pockets of high-quality habitat are interspersed with areas in which stream channels and streamside areas are in poor shape. Bringing salmon back from the brink will require the rebuilding of salmon habitat on an unprecedented scale, with substantial work needed in every one of the 17 watersheds of the Puget Sound basin.

We need your help. Pierce County has joined with the U.S. Army Corps of Engineers on several major projects on the Puyallup River, and we have found the agency to be a capable and enthusiastic partner. Corps assistance has allowed us to undertake habitat restoration and flood protection projects that would have been impossible without the agency's technical and financial assistance. We would like to see the Corps' support available to communities throughout the Puget Sound basin.

I am delighted that President Clinton and the Washington Congressional delegation have shown support for this effort through the Administration's WRDA bill and S. 2228. There are several elements of S. 2228 that I hope you will integrate into WRDA 2000. Most importantly, I urge you to authorize the program at the $125 million level proposed in S. 2228. The Puget Sound basin is large, with 17 watersheds comprising more than 13,000 square miles, an area larger than the state of Maryland. As I've stated before, habitat restoration work is needed throughout the basin if we're to have any hope of saving salmon in Puget Sound. Spread out over 8 years and among projects with an average Federal cost of $1 million, the authorization of $125 million would allow 15 of the highest priority projects a year to be completed. Over the course of the program, this level of commitment would make a big dent in the hundreds of restoration projects that are urgently needed to rebuild salmon populations.

I also recommend the provisions of S.2228 regarding selection of projects under the program that direct the Corps to consult with Federal, state, and local agencies and use prior plans and studies to prioritize and select projects. These provisions will ensure that the program is efficient, targeted to on-the-ground results, and fully compatible with other restoration efforts in the region.

The third aspect of S. 2228 that I'd like to highlight to you is how project costs are divided between the Federal Government and non-Federal sponsors. Consistent with other Corps habitat restoration programs, S. 2228 provides a greater Federal contribution in areas that are affected by a prior Corps project. In addition, S. 2228 waives part of the cost-sharing requirement for projects cosponsored by an Indian tribe. I strongly support these provisions.

My discussions with local government, tribal, environmental, and business leaders around Puget Sound indicate that there is strong support for S. 2228 and the partnership it will create. Pierce County and our neighbors around Puget Sound stand ready with funding, projects, and staff expertise to match the Federal commitment in this bill. Our jurisdictions have spent more than $15 million per year for the last

3 years on salmon projects and programs, and I can assure you that we are ready to rise to the funding challenges of this new program.

I deeply appreciate the bipartisan support for salmon recovery demonstrated by the Washington Congressional delegation, and would particularly like to thank Senators Murray and Gorton and Representatives Inslee and Dicks for their leadership on this legislation. I'd also like to recognize and thank the other cosponsors of House version of this bill, Representatives Metcalf, Baird, Smith, and McDermott.

Thank you for the opportunity to testify and I look forward to a long and fruitful partnership for the recovery of Puget Sound salmon.

RESPONSES OF DOUG SUTHERLAND TO ADDITIONAL QUESTIONS FROM SENATOR SMITH

Question 1. As you know, the Administration's proposal requests $10 million for environmental restoration projects in the Puget Sound region. How would $10 million compare to the amounts received in your region, under the Corps' Section 2G6 authority?

Response. I understand from the Corps that the Seattle District has expended $900,000 in studies and has programmed $4?8 million to construct restoration projects in the Puget Sound region under the 206 authority. In the Corps other restoration program under Section 1135, more than $6.5 million has been expended and an additional $3.1 million programmed for habitat work in the Puget Sound basin in the last 5 years. This is a high level of demand for programs that are new and not well publicized, and the demand for Corps assistance is expected to grow substantially in the region in coming years.

Question 2. Can you describe some of the specific types of projects that would be conducted under the Administration's proposed provision, if it were enacted?

Response. We anticipate that projects would include: . Restoring connections between rivers and side channel and floodplain habitats;

- Reconfiguring levees and dikes to improve habitat characteristics, including levee setbacks;
- Replacing undersized culverts and other barriers to salmon migration; Restoring estuary and marine beach habitat; Placing logs and stumps in streams and rivers to improve channel diversity; and . Planting trees and shrubs on riverfront lands; Puget Sound jurisdictions working with the Corps have implemented several projects of this sort in the last few years and can provide specific examples if needed.

Question 3. The Water Resources Development Act of 1996 provided authority for the Corps to carry our aquatic ecosystem restoration and protection projects with state, local government and private nonprofit partners on a 65 percent Federal and 35 percent nonFederal basis. The authority provides for projects up to a Federal cost of $5 million and authorizes annual appropriations up to $25 million. In view of this national program, why does the Puget Sound Region need its own exclusive program?

Response. Federal fisheries agencies have designated the Puget Sound basin as a whole as the appropriate region for recovery of chinook salmon and bull trout stocks that have recently been listed under the Endangered Species Act. Habitat restoration will be required to meet Federal ESA mandates throughout the basin, creating a high demand for assistance from Section 206 and other habitat programs. There are several reasons why assistance can be more effectively and efficiently provided through a Puget Soundwide program: 1. The regional scale and rigorous scientific standards for evaluating projects through the program will ensure that projects are selected on their merits and will individually and collectively make a valuable contribution to regional salmon recovery needs. 2. The evaluation of cost-effectiveness of projects on a regional scale will ensure that the program as a whole will be highly efficient, reducing long-term costs of salmon recovery. 3. More assistance and funding will be available to the many communities around Puget Sound that have valuable salmon habitat but lack the staff and funding needed to compete effectively under existing Corps authorities.

Question 4. The Administration's proposal for the Puget Sound Restoration Program authorizes a program for the Puget Sound Region for environmental restoration projects with a Federal cost up to $2.5 million to be cost shared on a 65 percent Federal and 35 percent non-Federal basins with non-Federal governments. The provision authorizes up to $10 million in Federal appropriations which would require non-Federal matching funds of about $5.4 million. S. 2228 proposes a similar program for the Puget Sound region but proposes a Federal share of up to $5 million per project and a total appropriation authorization of $125 million requiring non-

Federal matching funds of over $67 million. Your testimony supports the $125 million appropriation. Does the Puget Sound region have the capabi!lty to provide the 35 percent non-Federal share to match this level of Federal appropriation?

Response. Pierce County and our neighboring jurisdictions in the Puget Sound region are ready and able to provide the necessary funding to match Federal funds. We intend to match Federal funds with local, state, private, and tribal sources. Our strong commitment to providing needed funding is demonstrated by: More than $45 million in local funding of salmon projects and programs provided by Tri-County cities and counties in the last 3 years; Leadership to secure more than $38 million in state funding for salmon projects in the 1999–2001 biennial budget; and Assistance in establishing a new regional organization, the Puget Sound Salmon Foundation, to solicit private funding for salmon work. Jurisdictions in our region see salmon recovery as a long-term commitment, and are ready to provide the funding needed to accomplish the job.

STATEMENT OF LILLIAN BORRONE, DIRECTOR, PORT COMMERCE DEPARTMENT THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

Thank you, Mr. Chairman and members of the committee. My name is Lillian Borrone and I am Director of Port Commerce for The Port Authority of New York and New Jersey. We appreciate this opportunity to testify on behalf of a Federal navigation project and related matters that are of critical importance not only to the New York-New Jersey region, but also to the entire nation. As I begin, I would like to take a moment to recognize the invaluable work and untiring efforts of retiring Senators Frank Lautenberg of New Jersey and Daniel Patrick Moynihan of New York on behalf of the Port of New York and New Jersey and the citizens of our states. Their leadership has been tremendous and will be sorely missed for reasons that extend far beyond the bounds of water resources legislation.

The Port Authority is a bistate public authority created in 1921 and charged by the two States to promote and protect commerce in the New York-New Jersey metropolitan region, including responsibility to provide the infrastructure necessary to accomplish that goal.

The Hudson-Raritan estuary was one of America's principal ports well before the First Continental Congress met. Before the Dutch settlers of New Amsterdam built roads or schools, they built docks.

Historically the Port of New York and New Jersey has been the gateway for much of the nation's imports and exports. In fact, as late as the 1950's half of all U.S. trade flowed through the Port. As the nation's land and waterside infrastructure improved, especially in the latter half of the 20th century, other ports grew. As production and population growth shifted southward and westward, so did a growing share of the country's maritime trade. By the 1970's the Pacific Rim had begun to supplant the North Atlantic nations as the driving force of global economic growth, resulting in a boom in business at our western ports. That growth was not only good for the country but necessary as the U.S. economy became more integrated with the new world economy.

While the Port of New York and New Jersey's U.S. market share experienced a decline as other port regions and intermodal capabilities grew, the actual volume of trade remains enormous and it continues to increase. Today, New York-New Jersey is handling 2.5 million containers (as measured in twenty-foot equivalent units), a growth of 67 percent in just 4 years. And the cargo volumes at our Port, like the rest of the nation, are projected to continue to grow. Trade growth nationwide is projected at 4 percent in the years ahead; we conservatively project a 3.7 percent growth that would mean a doubling of cargo in our port over this decade. Other major ports anticipate similar growth.

This realization prompted us in 1998 to undertake a major review of the impacts of such growth on our marine infrastructure and determine what new investments would be required in our marine terminal, roadway, railroad and waterway infrastructure to meet this future demand.

The results of that review are contained in an investment options plan with a scope of 40 years that identifies up to $7 billion in local investments to modernize and expand the major components of the Port's infrastructure.

The Port of New York and New Jersey is not alone, obviously, in considering or undertaking major new investments in its maritime infrastructure. Charleston is planning to develop a new terminal on Daniels Island, Los Angeles and Long Beach are investing billions of dollars in marine terminal and intermodal infrastructure, while the Virginia Ports Authority has expansion plans of its own. A 1995 VPA study identified almost $335 million in improvements to accommodate the signifi-

cant cargo growth projected for that port. Continuing with the Virginia example, the study forecast a possible 250 percent increase in containerized cargo by 2010 of which intermodal volume was expected to increase 300 percent. I would not be surprised if today those 5 year old projections are revised upward to account for the incredible changes of our economy. All told, the Maritime Administration reports that between 1999 and 2003, ports predicts spending over $9 billion of non-Federal funding on marine terminals, dredging and other infrastructure.

Mr. Chairman, the significance of the Federal and port industry estimates is very clear. In this age of the international economy, multilateral trade relationships and intermodal technologies, import and export cargo flows will grow increasingly and we all will have to invest in channels and facilities in order to stay competitive.

Coupled with projections for strong growth in international trade throughout the U.S. is changing trends in the maritime industry. An impressive example of one of the trends sailed into New York Harbor in the summer of 1998 with the arrival of the Regina Maersk, her first U.S. stop on her inaugural East Coast Tour. She is a 6000 TEU vessel whose operating efficiencies can be realized with channel depths of 47 feet. (The Army Corps of Engineers uses a +2 feet standard to ensure safe bottom clearance in the channels.) An indicator of the challenges the Port of New York and New Jersey faced was the fact that the Regina had to stop first in Canada to discharge cargo before sailing into New York to make certain the vessel could navigate the 40-foot channels available to her. (I should note that underway now is Phase 2 of the 45-foot deepening of channels leading to the Howland Hook, Newark and Elizabeth container terminals.)

While the Regina Maersk may have been the first of these large vessels to call on New York Harbor, she not the only one we will see. As of the first quarter of 2000, there are 101 deep draft or "Post-Panamax" container ships sailing the world's trade lanes. While these vessels represent a little more than 6 percent of the world's commercial fleet, they carry 14 percent of all of the cargo traded in the world. In addition, another 130 orders have been placed by shipping lines that will more than double the number of these giants in service around the world. It is clear that the established trend toward larger vessels in most trade lanes is not an extraordinary occurrence for specialized cargo as was the view during the WRDA debate of 1986; it has, in fact, become the industry standard, much as corresponding channel depths will be the standard. This trend in the maritime industry is no different from technological developments in other transportation modes. It is the ocean equivalent of wide body jets, tandem trucks and double-stack unit trains, all of which are familiar sights throughout the country.

Given the long time that it takes to plan and carry out major infrastructure investments and the certain knowledge of the pressures that trade and technology will bring to our gateways, this country cannot afford to put off project authorization and funding decisions until the private sector is choking the channels of U.S. ports with ships with modern ships that require modern channels.

In recognition of this direction in ocean shipping and the presently inadequate depths of New York Harbor to accommodate these new vessels, our congressional delegation, including Senators Lautenberg and Moynihan, helped authorize a Corps feasibility study. That work, the New York and New Jersey Harbor Navigation Study, was completed this year. It is the subject of a Chief's Report signed earlier this month. In short, the report recommends the deepening to 50 feet of major channels that lead to major container terminal areas in the Port. I have included in my testimony a map that shows the various channels included in the recommendation.

Mr. Chairman, two questions that your Committee may have are what is the value of this project to the Nation and why should the Nation invest here. The answers lie in two places. First, as this Committee well knows, the purpose of an Army Corps feasibility study is to determine whether or not particular channel improvements derive national economic benefits. The Corps study found that the project would, in fact, realize an annual benefit totaling $238.5 million in national transportation cost savings. These benefits are the transportation cost savings that result from larger vessels being able to call on the Port of New York and New Jersey directly, rather than divert to another port only to have goods bound for the New York-New Jersey region trucked or railed back into the bistate area. Such a scenario has national consequences in terms of wear and tear on the nation's road and rail network, air quality, highway congestion, freight delivery time and overall quality of life. As you may know, a ship the size of the Regina Maersk carries 6000 containers, a volume that would require 6,000 trucks or 3,000 rail cars. Providing direct, all-water service into the region is both a more economical, as well as environmentally preferred, method of serving this market.

But the national interest in this project goes beyond those numbers, significant as they are. The Port of New York and New Jersey is in the heart of the nation's

largest and most affluent consumer market. Eighteen million consumers live and work in the immediate metropolitan region and that number swells to 80 million within 1 day's truck drive from our docks (or a 260-mile radius around the port). This area covers a ten-state region that stretches from Maine to Maryland, from Cape Cod Bay to the Ohio River. Add to this broad market base the national rail system that emanates from the region and the Port of New York and New Jersey directly serves the southeast, the Midwest and beyond. (No doubt few consumers inland of the coastal states understand how much seaports contribute to their quality of life.) As you can understand, given this broad customer base, the Port of New York and New Jersey is not only a regional port serving its own local market. Indeed, the Port continues to be a major gateway, the largest on the East Coast of North America, for international trade. Given the nation's growing involvement on world trade activities and the significant role that the Port of New York and New Jersey plays in that trade, the Nation has a significant interest in maximizing the port's potential to serve this national consumer demand. The same would be true in other major gateways on the four coasts.

We recognize, of course, that ports throughout the Nation and certainly along the East Coast compete for cargo. Baltimore competes with Norfolk which competes with New York-New Jersey which competes with Los Angeles and so on. That competition is an inherent characteristic of our nation's ports as we reflect, among other things, America's economic system and principles of federalism. It is to Congress' credit that, after exhaustive analysis by the Corps of Engineers, projects are authorized on the basis of their benefits to regional and national economies and not to make one port or region more competitive than another. The emphasis is on what is good for the country. That is nowhere more evident than in considering that New York-New Jersey, Norfolk, Seattle and Boston, for example, compete with Canadian ports for cargo. Halifax and Vancouver are formidable competitors that, it is useful to note, have naturally deep water among other advantages.

This competition among U.S. ports is healthy and economically beneficial. It ensures that port authorities, marine terminal operators, waterfront labor and others work to improve service, invest in facilities and adopt efficiencies. Those are things our customers expect and the consumers deserve. Channel depth is just one element of the investments that are made. In the case of the Port of New York and New Jersey, we will commit approximately $1 billion for the non-Federal share of the channel project that we are seeking in WRDA 2000. Furthermore, as described earlier, we anticipate on the order of $5 billion to $6 billion in major investments in upland infrastructure.

This combination of investments by Federal and local governments, coupled with significant private sector investment will result in a modernization of the Port of New York and New Jersey that will be better able to serve the nation, its businesses and consumers well into the 215 Century.

Mr. Chairman, I would like to be able to submit additional information for the record. Meanwhile, I would be happy to answer any questions you may have.

RESPONSES OF LILLIAN C. BORRONE TO ADDITIONAL QUESTIONS FROM SENATOR VOINOVICH

Question 1. Some interests, particularly in the environmental community, have questioned the need to deepen our ports to accommodate the latest generations of container ships indicating that the benefits of this deepening accrues to non-U.S. based carriers and represents destructive competition between U.S. ports without benefit to the U.S. economy.

Response. The entire nation benefits from having access to cost efficient transportation services. It is true that most container steamship lines are foreign-flag operations. This, in our opinion, has no more relevance to the issue of the condition of our contemporary maritime channel infrastructure than to question whether it is in the national interest to improve our highway or airport infrastructure since many motor vehicles are made by foreign-based corporations and foreign air carriers and passengers frequent our international gateways. Vessel ownership is really beside the point because steamship lines, tankers and other vessels are not the sole beneficiaries of port deepening projects. Consumers who use the products they carry or businesses who export their goods to other companies are major beneficiaries. Channels are only one aspect of a system of transportation facilities that sustain the competitiveness of our economy. The nation's importers and exporters shipping their products and commodities through New York Harbor rely on economic transportation services to move their freight into and out of the global marketplace. That intermodal infrastructure—be it rail, highways, marine terminals, navigation chan-

nels or intelligent transportation technologies—requires productivity enhancements and capital investments to expand capacity and improve efficiency. The benefits of a transportation system serving oceanborne cargo such as we have in our region, enhanced by improvements in its efficiency made through investments in infrastructure, labor and other measures, reach beyond the ocean carrier to the trucker. the shipper, other affected employers and workers, and ultimately to consumers. And 1l there IS any question about who benefits by more efficient transportation modes, a simple test would be to reverse the investments and watch what happens both at the port and farther down the system where the consumer awaits the goods.

As the volume of oceanborne commerce has grown, it has become possible to realize the significant economies of scale offered by large oceangoing ships. These larger capacity ships are already in service worldwide and more are on order as my statement notes. Deeper channels will translate into lower transportation costs, as these larger ships are able to reach container-handling facilities in the port without waiting for favorable tide conditions or lightering. Many of these cost savings, in turn, will be passed on to consumers in the form of lower priced goods at regional markets. In addition, American goods exported on larger ships can take advantage of lower transportation costs thereby being better able to compete in international markets.

And what is the dimension of the benefits? The Port of New York and New Jersey, the largest port on the east coast, is the gateway for $72 billion in cargo weighing 58 million long tons including more than 1.5 million containers with goods destined for or departing from most states in the continental US. The Port has a primary market of 17 million consumers in the New York/New Jersey/Connecticut metropolitan region and a secondary market of 81 million consumers in a 31-state region. The breath of transportation services provided to the nation by the port would indicate that the more efficient and effective our maritime transport is, the more beneficial it is to American consumers and businesses.

Lastly, while there is competition between ports, it is generally for cargo that is not consumed locally. As my testimony discusses, this competition is healthy since as a direct result, freight rates remain low, services improve, labor becomes more efficient and our national economy benefits.

Question 2. The deepening project recommended in the Chief of Engineers Report of May 2, 2000 includes deepening the Bay Ridge Channel into the South Brooklyn Marine Terminal. The report indicates that major transportation infrastructure improvements, possibly including a railroad freight tunnel, would be needed to realize the benefits of deepening the channel into South Brooklyn. In view of this fact, why is it necessary to authorize the deepening of the Bay Ridge Channel now?

Response. The nearly 3 nautical mile long Bay Ridge Channel will be improved and maintained to a depth of 50 feet and a proposed turning basin is to be located opposite the South Brooklyn Marine Terminal. Authorization is sought for all channels examined and recommended in the Harbor Navigation Study as the Port and its intermodal transportation connections are recognized to function as an integrated system. Projections performed by the Port Authority and the City of New York indicate that oceanborne cargo will double within 10 years. This volume will far exceed the existing terminal capacity in the port, requiring the future expansion and development of all of the region's marine facilities, South Brooklyn included. Our studies documented that, even with terminal productivity enhancements, the Port could face a deficit in terminal capacity within 6 years. Leaving Brooklyn facilities out of current planning and development activities would result in a less efficient port and transportation system overall.

The Port of New York and New Jersey functions as a single complex even though marine terminals are located in separate locations throughout the harbor. Transportation improvements necessary to maintain the efficient handling of maritime goods—including deepened ship channels, rail and road improvements—must take place in a comprehensive and coordinated fashion. While project authorization at this time enables design work to proceed for all these channels so that precise cost estimates can be obtained, these estimates are necessary to seek subsequent authorization for funding specific improvements as they are needed and without delay. By the same token, appropriations will be sought when the necessary preconditions for the Brooklyn project elements have been put in place.

Specifically, construction of the channel improvement to South Brooklyn will be subject to a commitment to rehabilitate the South Brooklyn Marine Terminal and to provide the transportation infrastructure needed to realize project benefits.

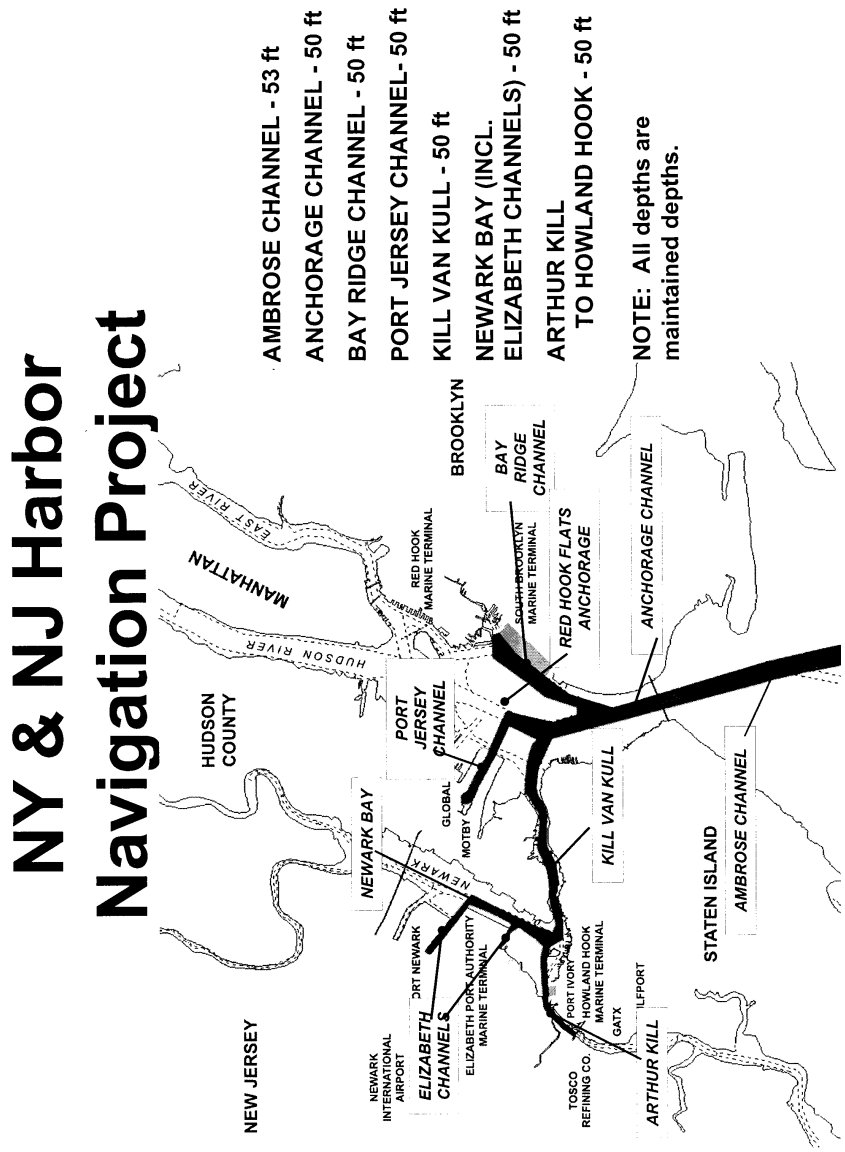
Question 3. I understand that there would be a significant impact on the movement of goods along the East Coast if the project deepening were not to occur. Could

you summarize what the implications would be of not undertaking the harbor deepening project? In what ways is this project in the national interest?

Response. By 2060, the number of vessel passages required to transport cargo through the Port would be six times the number required in 1996 if channels are not deepened and there was no accompanying change in the current vessel fleet. (If 2060 seems to be far too distant a projection to be relevant, one should recall that major infrastructure projects take decades to accomplish, from conception to completion, and should be designed to be of practical use for decades as well.) Some of the container ships that currently utilize the Port Jersey, the Kill Van Kull and the Arthur Kill Channels can now do so only under favorable tide conditions. To increase the number of vessel passages during the period of favorable tide by a factor of six or more may not be physically possible and certainly would pose a grave increase in the probability of accidents. Within this and the next decade if the deepening projects were not to occur, ocean carriers who are turning to a different vessel mix are likely to direct their ships to other US or Canadian ports that already have 50 feet and greater channel depths and have excellent, intermodal rail service into the United States.

It is important to consider the environmental benefit of providing adequate channel dimensions. The movement of freight over the water is known to be the most efficient and environmentally benign of all modes of transport. One large marine vessel can carry thousands of containers while a 100-car train can carry 200 containers, double stacked, and a truck only one. Is it better to ship cargo—the volume of which is projected to double over the next 10 years—over interstate highways or even rail, or on large capacity vessels on the seas and along the nation's inland waterways? It also raises legitimate concerns as to the capacity, for example, of our interstates to handle even more tractor trailer rigs than already would be on the roads. That alone causes real concern in New York and New Jersey where the ability to add lanes and build new highways, especially for freight movements, is terribly constrained. Unnecessarily diverting containers and other freight to land modes would increase the cost of transporting goods to the region and increase congestion and pollution.

Finally, beyond the environmental and congestion issues, the project is in the national interest since it lowers the transportation cost (by $230 million per year) of internationally shipping goods to and from many Northeast and Midwest states that are served by the Port of New York and New Jersey.



STATEMENT OF R. BARRY PALMER, EXECUTIVE DIRECTOR, DINAMO

Good morning. I am R. Barry Palmer, Executive Director of DINAMO, the Association for the Development of Inland Navigation in America's Ohio Valley. DINAMO is a membership based regional association of leaders from business and industry, labor and state government whose singular purpose is to expedite the modernization of the lock and dam infrastructure on the Ohio River Navigation System. DINAMO was launched in 1981 because of a perceived regional need for the Federal Government to construct new lock and dam facilities at specific locations on the Ohio River Navigation System. Current modernization of the Ohio River

Navigation System was initiated in the mid 1950's, continued for about 20 years and was never completed. Prior to construction of new lock facilities at the Robert C. Byrd Locks and Dam, Ohio River, OH/WV, authorized in 1986, the last project authorized for construction on the Ohio River was the Hannibal Lock and Dam in 1964.

We have made much progress over the last 18 years, Mr. Chairman, largely with the help and leadership of this committee. 15 lock and dam structures on the Ohio River Navigation System are under construction or complete. Those projects include major rehabilitation of Emsworth, Dashields, and Montgomery Locks and Dams, Ohio River, PA; and construction of the Robert C. Byrd Locks and Dam, formerly the Gallipolis Locks and Dam on the Ohio River, OH/W; Grays Landing Lock and Dam and Point Marion Lock, Monongahela River, PA; Winfield Lock Replacement on the Kanawha River, WV; Olmsted Locks and Dam, replacing Locks and Dams 52 and 53 on the Lower Ohio River, IL/KY; Monongahela River Locks and Dams 2,3 & 4, PA; McAlpine Lock Project on the Ohio River, IN/KY; Marmet Lock Replacement on the Kanawha River, WV; and Kentucky Lock Addition on the Tennessee River, KY.

But the task is not finished. We are here before this distinguished subcommittee to urge your support in two specific areas:

First, for all lock and dam modernization projects already authorized and under construction, we would urge that the currently scheduled diesel fuel/user tax revenues, as well as surplus of moneys gathering in the Inland Waterways Trust Fund, be drawn down to complete all lock and dam construction projects in a timely manner. In the Ohio Valley about $250 million is needed annually—50 percent from the Inland Waterways Trust Fund and 50 percent from the General Treasury to complete Olmsted, Lower Monongahela River 2, 3 & 4, McAlpine, Marmet, and Kentucky by 2008 or earlier. What is needed is funding predictability on efficient funding schedules of the Corps of Engineers.

The private sector entered into a partnership with the Federal Government to fund 50 percent of the costs of a lock and dam modernization project by paying 20 cents per gallon for each gallon of diesel fuel consumed by towboats operating on America's inland navigation system. The private sector has met its obligations in this regard each and every year since the user taxes were established. What has been missing is a Federal Government reciprocation of its partnership responsibilities to pay its share of the costs for the nation's lock and dam modernization program.

The construction schedule for lock and dam construction projects on the Ohio River Navigation System has in some instances slipped by as many as 6 years, primarily due to insufficient funding. Funding for lock and dam construction in the Ohio Valley plummeted from about $220 million in fiscal year 1996 to $115 million in fiscal year 2000. (The President's Civil Works Budget for fiscal year 2000 requested lock and dam construction in the region at $70 million.) According to a March 2000 report of the Institute for Water Resources, US Army Corps of Engineers, for the Inland Waterway Users Board more than $1.34 billion in transportation savings has already been washed down the Ohio River because of construction schedule slippage for Ohio valley projects. An additional $534 million of potential future benefits can be saved if these projects on the Ohio River System are completed by 2008 or earlier.

Currently there is more than $370 million in the Trust Fund, and annual revenues and interest on the Trust Fund Balance is about $120 million annually. DINAMO believes that the 20 cents per gallon diesel fuel tax will provide adequate revenue under the cost-sharing arrangements established by the Congress is the Water Resources Development Act of 1986 to rebuild our nation's waterways infrastructure.

Secondly, we urge the leadership of this Committee to provide construction authorization of improvements at the John T. Myers and Greenup Locks and Dams, in accordance with the recommendations of the Interim Feasibility Reports of the US Army Corps of Engineers. The Division Engineers Notice will be released by the Great Lakes and Ohio River Division Commander this month, and a Final Report of the Chief of Engineers should be complete by the Fall of 2000. Mr. Chairman, we urge these projects receive a contingent authorization, subject to a Final Report of the Chief of Engineers by the end of this calendar year.

Contingent construction authorizations for the Myers and Greenup projects are needed now, Mr. Chairman, because it takes a long time to get these lock and dam modernization projects constructed. The Olmsted Locks and Dam project, for example, was authorized in 1988 after 5 or 6 years of study. It probably will not be fully operational until at least 2008 about 25 years of heavy lifting—if efficient funding levels are met. Monies for Pre-Construction Engineering and Design for both

projects have been included in the President's fiscal year 2001 Civil Works Budget. So the opportunity is ripe for these projects to move forward in an orderly manner.

You might also note, Mr. Chairman, that DINAMO navigation and other waterways interests have been sitting at the table in discussions with environmental representatives from the Fish and Wildlife Service. We have been working together with the US Army Corps of Engineers on a program of Ecosystem Restoration projects at more than 200 sites in conjunction with the Ohio River Main Stem Study. These projects include riverine and tailwater enhancements, embayment restoration, island protection/restoration, near-shore habitat restoration, and riparian and wetlands restoration.

Finally we applaud the bi-partisan leadership of this committee to address the deplorable underinvestment in our nation's infrastructure. TEA–21 and AIR–21 will provide the investment America expects in our highways and airways. We urge the committee to focus now on the real problems and needs of our inland waterways and provide leadership to resolve our problems.

Profile of Ohio River Navigation System, Traffic and Selected Economic Activity

There are 60 active navigation locks and dams in the Ohio River Basin operated by the US Army Corps of Engineers. There are 20 active projects on the Ohio River, 9 on the Monongahela River, 8 on the Allegheny River, 3 on the Kanawha River, 4 on the Kentucky River, 2 on the Green River, 4 on the Cumberland River, 9 on the Tennessee River and 1 on the Clinch River. Twenty of the navigation structures are over 60 years in age, twenty-six are between 30 and 60 years old, ten are between 10 and 30 years old, and four are less than 10 years old.

The older locks date to the 1930's, and there is an increasing likelihood of structural failure of some of these facilities. This situation portends decreasing reliability. Hence there will be a need for increasing repair and maintenance costs, as well as closure times. These closure times will increase delay costs and diversion of commodities to other modes from closures. In 1989 the main lock at John T. Myers Locks and Dam was closed for major maintenance for 45 days. This closure cost industry an additional $15 million while transiting the smaller 600' x 110' auxiliary chamber. The McAlpine closure of the main chamber in 1997 created an average delay per tow of 4 days at an additional cost to industry of $12 million. Last summer closures at Greenup cost industry an additional $3.4 million.

The river has always been an economic generator, and it will continue to be a dominant catalyst for private investment as long as we maintain and upgrade its infrastructure. There are over 1000 manufacturing facilities, terminals, and docks in the Ohio River Basin that shipped and received about 275 million tons of waterborne commerce in 1998. The Port of Pittsburgh Commission recently commissioned a study conducted by Martin and Associates, Lancaster, PA, that estimated the amount of jobs that were directly, indirectly, and induced from 49.1 tons of waterborne commerce transiting Western Pennsylvania's navigable rivers in 1994. The study reflected the following results: the positive benefits of the rivers include 120,000 jobs, or 12 percent of private sector employment and average employee earnings of $37,808. Using traffic data from 1994 and extrapolating the job information from the Port of Pittsburgh study to the entire Basin, a case could be made that jobs associated with waterborne commerce on the Ohio River Navigation System are more than 650,000 today.

In 1998, almost 275 million tons of commodities moved on the waterways of the Ohio River Basin. These commodities had a combined value of just more than $32.8 billion. Coal made up more than 57 percent of this tonnage, followed by aggregates with almost 18 percent. An analysis of the Ohio River Basin waterborne commerce data shows that almost 52 million tons of commodities were shipped on the river system out of the basin. A sizable portion of this tonnage (almost 23.5 million tons) consisted of coal. Docks in the basin received just less than 42 million tons from outside the Ohio River System, with petroleum products being the largest commodity brought in. Just less than 180 million tons moved within the basin.

Traffic doubled on the main stem Ohio River between 1950 and 1965 (15 years). Traffic doubled again between 1965 and 1990 (25 years). Traffic on the Ohio River grew 60 percent between 1983 and 1997, while traffic on the Mississippi River System grew 39 percent to 489 million tons over the same period. While the tonnage today is pegged at about 275 million tons on the Ohio River Navigation System, the most probable forecast of traffic on the system will be 385 million tons by 2020 and 500 million tons by 2050.

Coal for Electric Power Generation: The Ohio River Basin is a major coal producing and power generating area. Utility companies have historically been attracted to a plentiful supply of water for plant use. The utilities also take advantage of the

transportation savings provided by barges and the lock and dam system on the basin's waterways.

The Ohio River and its navigable tributaries are the kilowatt highways for one of the nation's most industrialized areas, the corridor from Pittsburgh to St. Louis. 1998 coal shipments on the Ohio River basin's waterways totaled just less than 157 million tons, or 57 percent of all barge cargo. Of this amount, more than 117 million tons were destined for coal-fired power plants. In 1998 this coal moved to 47 power plants along the Ohio River and its tributaries and also to 21 power plants in 8 states outside of the basin. Coal moving in the Ohio River basin destined for power plants had a value of over $4.5 billion.

Most of the utility coal moving by barge in the Ohio River basin originated on the Ohio River. Some of this coal actually was mined in the western United States and moved by rail to docks on the Ohio River, where it was loaded into barges to complete the trip to power plants. Other significant origins for utility coal were the Monongahela River and the low-sulfur coal producing areas along the Kanawha and Big Sandy Rivers. Rivers outside the Ohio River System that received coal from the basin included the Mississippi, Black Warrior/Tombigbee, Panama City harbor, Escambia, Biloxi Harbor, Arkansas, Illinois and Neches.

West Virginia shipped the most utility coal by water, moving over 40 million tons of primarily low sulfur coal to 40 plants in 9 states. Kentucky, also a source of low sulfur coal, was next with almost 35 million tons. Ohio's 11 power plants, which received coal by barge, took in almost 30.5 million tons of coal worth almost $1.2 billion. More of this coal (41 percent) came from West Virginia than any other state. Indiana was next with over 16.5 million tons of coal received by 5 power plants, with Illinois supplying two-thirds of the tonnage.

The most recent lock modernization project on the Ohio River was the building of two new lock chambers at Robert C. Byrd Locks and Dam (formerly Gallipolis Locks and Dam). The new 1,200′ x 110′ and 600′ x 110′ locks located in a canal removed a major bottleneck to navigation. This improvement was a major benefit to the shipment of coal to power plants, as over 22 million tons of coal bound for power plants transited R.C. Byrd Locks in 1998. This was 38 percent of the total tonnage at these locks.

Other recent improvements in the Ohio River Basin were at Winfield Locks on the Kanawha River. Winfield Locks processed over 12.5 million tons of utility coal (59 percent of total tons) in 1998. Navigation infrastructure on the Monongahela River has also been improved lately with new locks at Grays Landing and Point Marion Lock and Dams. In 1997, Grays Landing moved 4.2 million tons of utility coal (87 percent of total) and Point Marion moved 4.1 million tons (89 percent of total).

Future improvements to navigation on the Kanawha River will benefit utility coal shipping. A new lock 800' x 110' is planned at Marmet Locks, where 11.9 million tons of utility coal made up 72 percent of the total traffic in 1998. A major rehabilitation of London Locks will include an extension of the lock. London transited 6.5 million tons of utility coal, which was 85 percent of the total traffic.

The Chemical Industry and the Ohio River Navigation System: The Ohio River basin's sixth largest commodity group is chemicals. There were 236 waterside chemical plants, docks and terminals in the basin which shipped or received chemical commodities by barge in 1998.

As with the utility companies, chemical companies have historically been attracted to a plentiful supply of water and raw materials. These companies also take advantage of the transportation savings provided by barges and the lock and dam system on the basin's waterways. In the Ohio River Basin, important clusters of waterside chemical plants have developed along the lower Monongahela and upper Ohio Rivers; along the Ohio River from Parkersburg, West Virginia through Huntington, West Virginia to Portsmouth, Ohio; in the Louisville, Kentucky area and along in the Tennessee and Kanawha River valleys.

Chemical plants are located along the lower Monongahela River and Upper Ohio for access to coal and salt deposits and chemical raw materials from coking plants. Plastics plants are located in the Parkersburg area due to the proximity to auto parts and plastics manufacturers. In the Huntington-Portsmouth area, much of the plant development was tied to the Ashland Oil refinery at Catlettsburg, Kentucky or the Armco Steel mill in Ashland, Kentucky. The chemical complex at Louisville developed during World War II, when the Defense Department looked for a waterside location to manufacture synthetic rubber. Chemical plants were also attracted to the cheap electricity of the Tennessee Valley and the salt, coal and mineral deposits of the Kanawha Valley.

1998 chemical shipments on the Ohio River basin's waterways totaled just less than 10.2 million tons, or 3.7 percent of all barge cargo. Of this amount, more than

8 million tons were shipped into the basin from outside. Just over 1 million tons were shipped out of the basin, and almost 1.1 million tons moved within the Ohio River System. Chemicals are a high-value commodity. The almost 10.2 million tons moving by barge in 1998 had a combined value of almost $6.5 billion, which is over 20 per cent of the value of the basin's commodities moving by water.

The largest chemical commodity that moves by barge in the basin is styrene, which is used in the manufacture of polystyrene for insulation and packaging uses and in the manufacture of synthetic rubber. Most of the almost 1.4 million tons of styrene which moved in 1998 originated in the Houston and Baton Rouge areas and moved to docks on the upper Ohio River. Cumene, which is used in the manufacture of acetone and phenols for the manufacture of products such as building materials, carpets, auto parts, cosmetics, and medicines is the second ranking waterborne chemicals. Sodium hydroxide, which is used in the manufacture of rayon and cellophane is another ranking waterborne chemical. Over 1.6 million tons of various types of fertilizers also move in barges.

Most of the chemicals that moved by barge in the Ohio River basin originated in Texas and Louisiana. The leading basin state in chemical shipments was Kentucky. The main destination for chemical barges in the basin were plants and docks in Ohio, which received over 2.5 million tons. Kentucky and Alabama also received more than 1 million tons of chemicals each. Since 90 percent of the chemicals shipped by water in the Ohio River basin enter or leave the basin, the lower Ohio River Locks passed the most chemical tonnage in 1997. Lock and Dam 52 moved 9.7 million tons of chemicals. Wilson Lock and Dam on the Tennessee River had the highest percentage of chemical tonnage, with almost 1.9 million tons of chemicals of its 13.6 million total tons, for 13.7 percent.

Petroleum, Petroleum Products and the Ohio River Navigation System: The Ohio River basin's third largest commodity group is crude petroleum and products made from petroleum. There were over 250 waterside refineries, tank farms, pipelines, factories and terminals in the basin, which shipped or received petroleum or petroleum products by barge in 1998.

Petroleum and petroleum product shipments on the Ohio River basin's waterways totaled just over 20.25 million tons in 1998, or 7.4 percent of all basin barge cargo. Of this amount, just less than 9.7 million tons were shipped into the basin from outside. Over 1.1 million tons were shipped out of the basin, and over 9.4 million tons moved within the Ohio River System. The petroleum and petroleum products that moved by barge in 1998 had a combined value of over $3.3 billion, which was over 10 per cent of the value of the basin's commodities moving by water. 1998 was the first year since 1979 with more than 20 million tons of petroleum moved on Ohio River Basin waterways.

The largest petroleum product that moves by barge in the basin is gasoline. Most of the 7.5 million tons of gasoline which moved in 1998 moved from the Huntington area to the Louisville, Cincinnati and Pittsburgh areas or from the lower Mississippi River into the basin. Distillate fuel oil is the second ranking waterborne petroleum product. Almost 300 thousands tons of crude petroleum moved by barge in the basin.

Over 35 per cent of the grain that moved by barge in the Ohio River basin originated in West Virginia. Gasoline and distillate and residual fuel oils made up most of this tonnage. Louisiana docks shipped gasoline oils and petroleum coke into the basin.

The main destinations for petroleum barges originating in the basin were facilities in Kentucky on the Ohio, Tennessee, Green and Licking Rivers. A majority of the movements to Ohio were destined for facilities in the Cincinnati and Marietta areas and consisted of gasoline, petroleum coke and distillate fuel oil as well as asphalt, tar and pitch.

Since more than half of the petroleum shipped by water in the Ohio River basin enters or leaves the basin, the lower Ohio River Locks passed the most petroleum tonnage in 1998. Locks and Dam 53 moved 10.7 million tons of petroleum and petroleum products. Almost half of this tonnage was gasoline and petroleum coke. Meldahl Locks and Dam, just upstream of the Cincinnati area, had the highest percentage of petroleum tonnage, with over 7.3 million tons of petroleum of its 63.7 million total tons, for 11.6 percent.

Grain and the Ohio River Navigation System: The Ohio River basin's fourth largest commodity group is grain. There were 144 waterside grain elevators, plants and terminals in the basin, which shipped or received grain by barge in 1998.

Ohio River System waterways serve grain shippers primarily by affording access to the export and industrial markets for grain. These markets have been the most dynamic sector of the grain market and the strong growth in grain traffic in the basin reflects the prominence of these sectors in waterborne movements. Large

movements of grains are made by water out of the basin to the export market through lower Mississippi River ports. The only other significant movements of barged grains are those to the South, most importantly to processors in the Tennessee River Valley.

Grain shipments on the Ohio River basin's waterways totaled just less than 14 million tons in 1998, or 5.1 percent of all barge cargo. Of this amount, just less than 3.9 million tons were shipped into the basin from outside. Over 10.3 million tons were shipped out of the basin, and over 900 thousand tons moved within the Ohio River System. The 14 million tons moving by barge in 1998 had a combined value of over $2.7 billion, which is over 8.25 per cent of the value of the basin's commodities moving by water. 1998 was the fourth largest year on history with more than 14 million tons of grain moved on Ohio river Basin waterways.

The largest grain commodity that moves by barge in the basin is corn. Almost all of the over 5.1 million tons of corn which moved in 1998 fell into one of two categories: moving from the upper Mississippi or Illinois River to the Tennessee River for processing; or moving from the lower Ohio River to the lower Mississippi River for export. Soybeans is the second ranking waterborne grain. The leading processed grain product is animal feed preparations.

Most of the grain that moved by barge in the Ohio River basin originated in Illinois. Corn, soybeans and animal feed preparations were shipped out of Illinois on the Ohio, Mississippi and Illinois Rivers.

The main destinations for grain barges originating in the basin were export facilities in Louisiana. Within the basin, processing plants in Decatur and Guntersville, Alabama and Loudoun and Chattanooga, Tennessee were major destinations for corn and other grains.

Since 94 percent of the grain shipped by water in the Ohio River basin enter or leave the basin, the lower Ohio River Locks passed the most grain tonnage in 1998. Lock and Dam 52 moved 9.76 million tons of grain. Watts Bar Lock and Dam on the Tennessee River had the highest percentage of grain tonnage, with over 800 thousand tons of grain of its 1.7 million total tons, for 47 percent.

Ohio River Main Stem Study and Near-Term Investment Needs

The Ohio River Main Stem Study, initiated within the past 5-6 years, is intended to be an authorization document for near-term needs (over the near 15–20 years) and a Master Plan for long-term needs. During the last several years it has become clear that an additional eight locks and dams will become candidates for substantial capital improvements over the next 10 years on the Ohio River Main Stem. Because of a combination of factors—including forecasted traffic growth, the age and condition of a number of older navigation facilities, [and hence] normal operating transit costs, projected closure delay costs, and additional operation and maintenance and major maintenance costs we will be back to this committee several times in the next decade seeking construction authorization for additional capacity at several locations along the Ohio River. These lock and dam projects include, in addition to John T. Myers and Greenup Locks and Dams, Emsworth, Dashields, and Montgomery Locks and Dams near Pittsburgh; Newburgh and Cannelton Locks and Dams on the Lower Ohio; and Meldahl Locks and Dam on the Middle Ohio. Attached is a graph depicting which projects appear to be the next likely candidates for major capital improvements.

More importantly, during the course of the study a clear justification was found for present authorization of large scale improvements at two Ohio River facilities namely John T. Myers and Greenup. The Great Lakes and Ohio River Division Commander will forward his notice of improvements at these locks and dams to Washington, D.C. We are told that a Final Report of the Chief of Engineers will be completed before the end of this calendar year. We are therefore asking the Committee to include contingent authorizations for these projects in this year's version of the Water Resources Development Act of 2000.

In terms of both traffic levels and delays, John T. Myers and Greenup are the two busiest lock projects on the Ohio River for which major improvements are not already under construction (or authorized). In 1998 the US Army Corps of Engineers reports traffic volume through John T. Myers at nearly 73.6 million tons and traffic volume through Greenup at more than 71.8 million tons. Each facility consists of one 1200' x 110' main lock (capable of locking 16 jumbo barges and a towboat in a single operation) and one 600' x 110' auxiliary lock (capable of locking 6 jumbo barges and a towboat in a single operation). The current problem is that traffic volume in the Myers and Greenup portions of the river are growing at such a rapid pace that the practical capacity of each main lock chamber will soon be overwhelmed. Construction of increased capacity at the auxiliary chambers of the John T. Myers and Greenup locks is needed soon, in order the forestall the need for con-

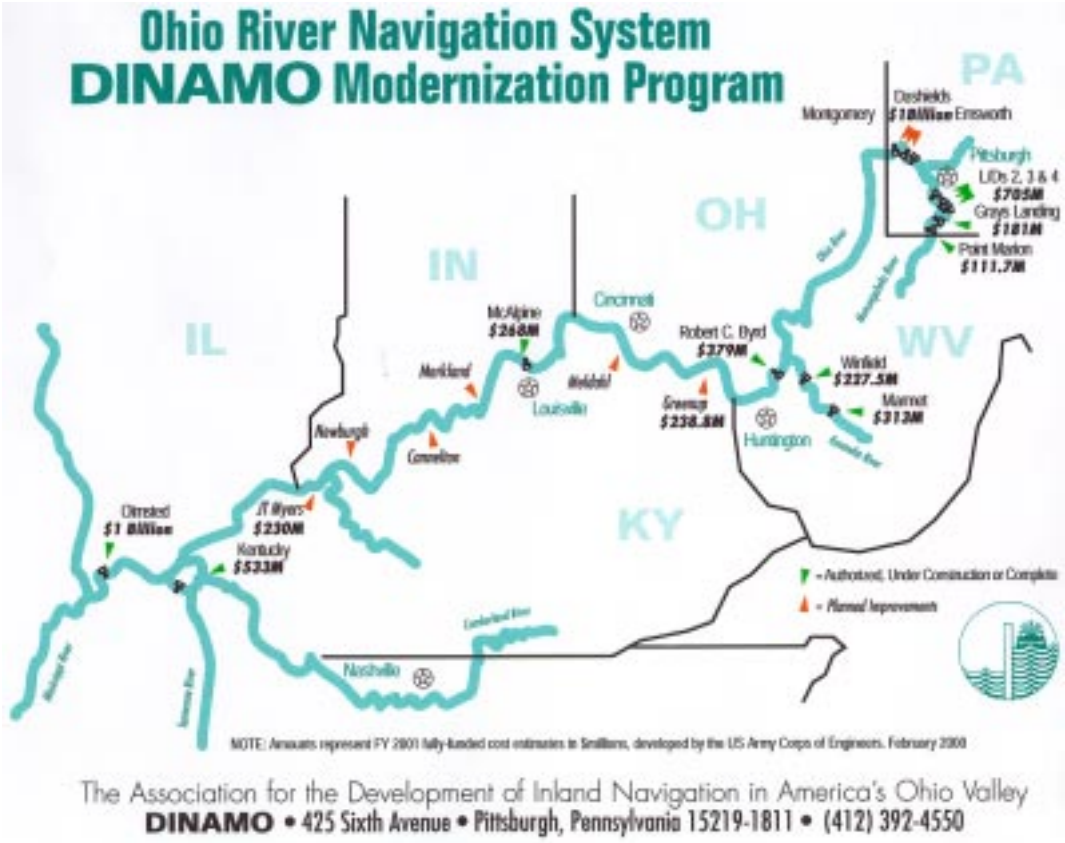
struction of a new third 1200' x 110' lock at some time in the future. The US Army Corps of Engineers, Great Lakes and Ohio River Division, is recommending 600' x 110' extensions to the existing 600' x 110' auxiliary locks. DINAMO concurs with these recommendations and has been participating fully in the Corps' process to reach this recommendation.

Fewer delays also mean reduced air emissions. The Corps of Engineers estimates that with the John T. Myers lock extension 6.8 million fewer gallons of fuel will be burned, 342 fewer tons of carbon monoxide/dioxide will be put into the air, as will 854 fewer tons on nitrous oxide, 171 fewer tons of hydrocarbons and 85 fewer tons of particulates. Lock and Dam modernization is good for the environment.

The project cost for the John T. Myers Auxiliary Lock extension is about $182 million, for Greenup about $176 million. Each extension could be completed by 2008 if the projects were included in the Water Resources Development Act of 2000. The benefit/cost ratio for John T. Myers is 1.8, and the benefit/ cost ratio for Greenup is 2.5. It is important to note that the Final Interim Report of the Chief of Engineers for both lock and dam modernization projects will be completed this year. These projects should achieve final reviews and be included in this years' WRDA legislation.

In summary, Mr. Chairman, we urge your leadership in providing construction authorization for capital improvements at the John T. Myers and Greenup Locks and Dams on the Ohio River, in accordance with the recommendations of the US Army Corps of Engineers, its Great Lakes and Ohio River Division, and its Louisville and Huntington Districts, as contained in their Interim Feasibility Reports for the projects. We recommend that you continue with the cost-sharing arrangements for these projects as established by the Water Resources Development Act of 1986. The tax levels on diesel fuel consumed by towboats operating on America's inland navigation system are sufficient to fund our appropriate share of the costs of lock and dam modernization. The work of rebuilding our lock and dam system is serious business, and the Federal Government needs to expedite projects already under construction in a timely and orderly manner.

Thank you for the opportunity to present our views on these matters.



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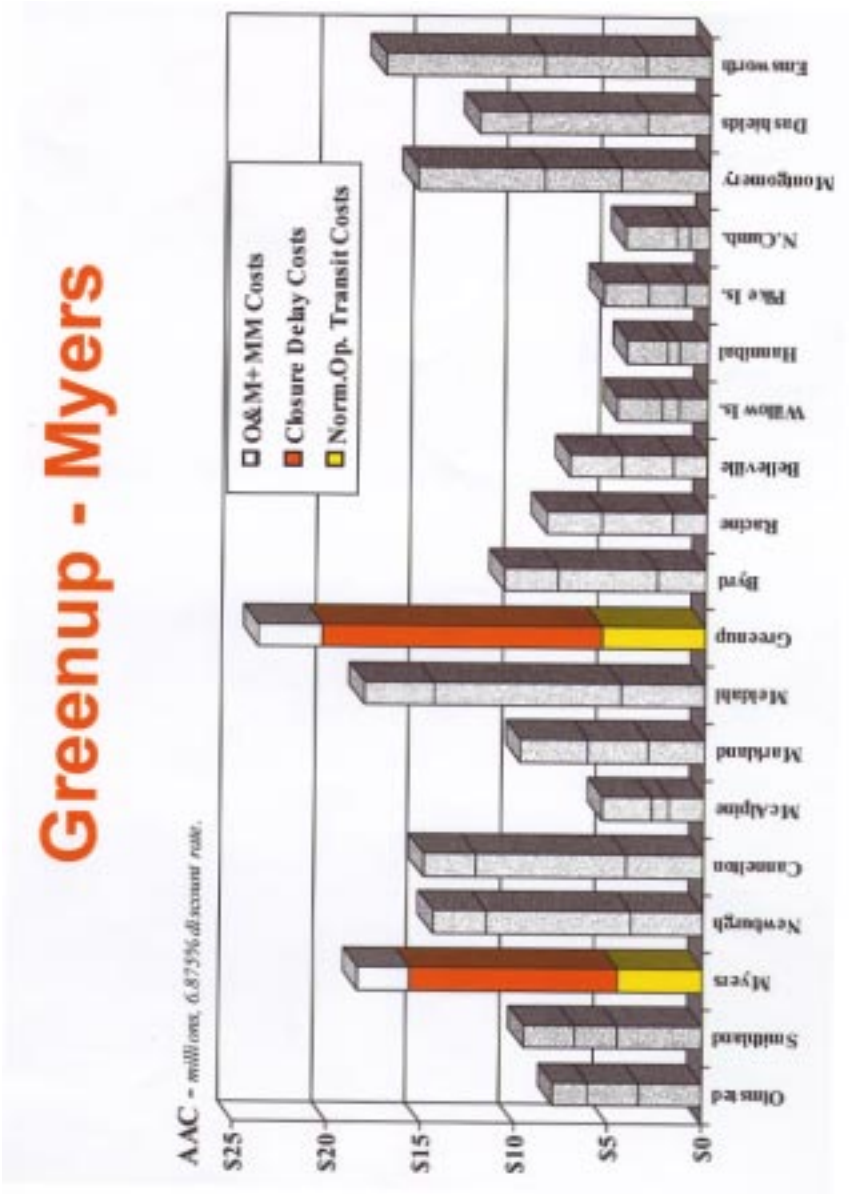
Olmsted Locks and Dam


Greenup - Myers
AAC - millions, 6.875% discount rate.
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O&M+MM Costs
Closure Delay Costs
Norm.Op. Transit Costs
Olmsted
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Myers
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McAlpine
Marland
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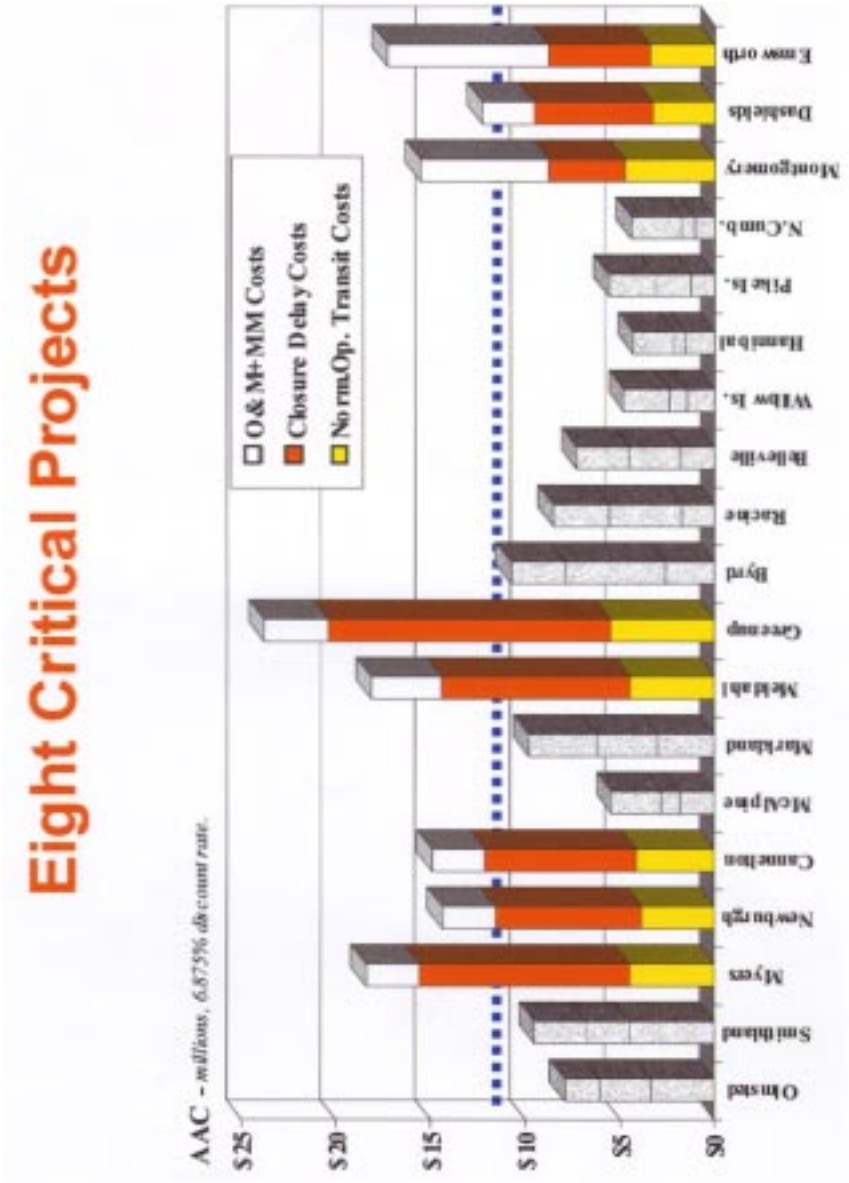
Eight Critical Projects
AAC - millions, 6.875% discount rate.
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O&M+MM Costs
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Norm.Op. Transit Costs
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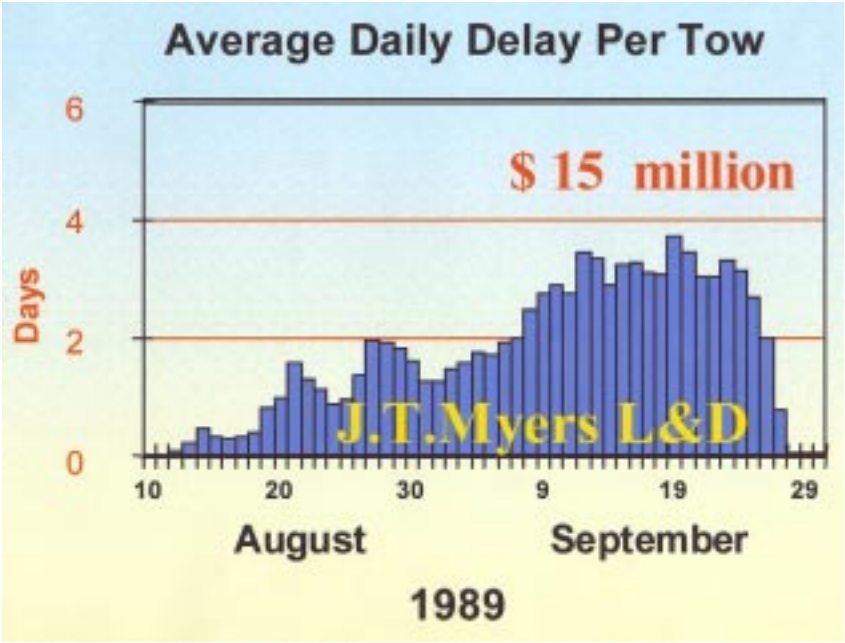
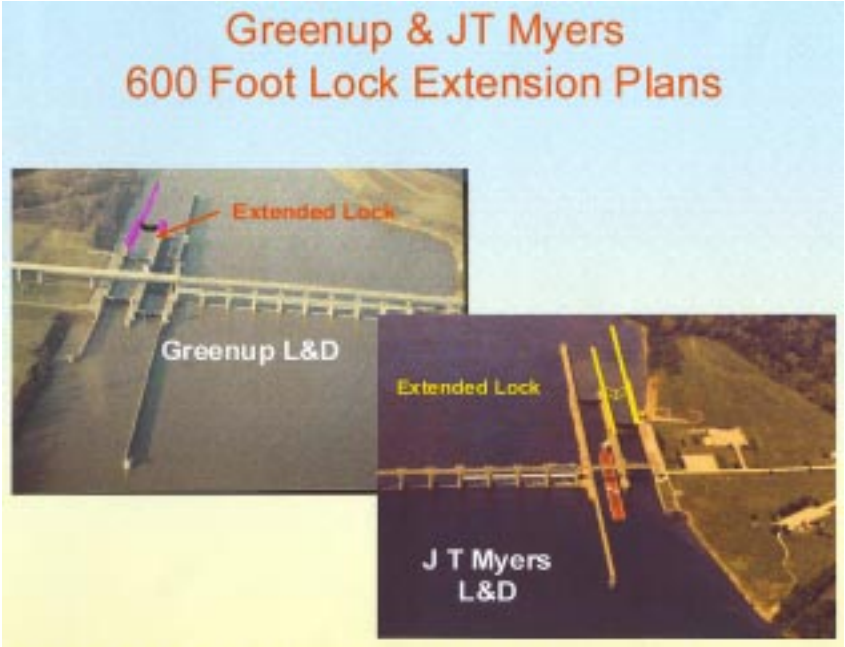

Average Daily Delay Per Tow
$ 15 million
J.T.Myers L&D
Days
6
4
2
0
10
20
30
9
19
29
August
September
1989


Greenup & JT Myers
600 Foot Lock Extension Plans
Extended Lock
Greenup L&D
Extended Lock
J T Myers
L&D

Greenup/ Myers Feasibility Report
Division Engineers Notice: May 2000

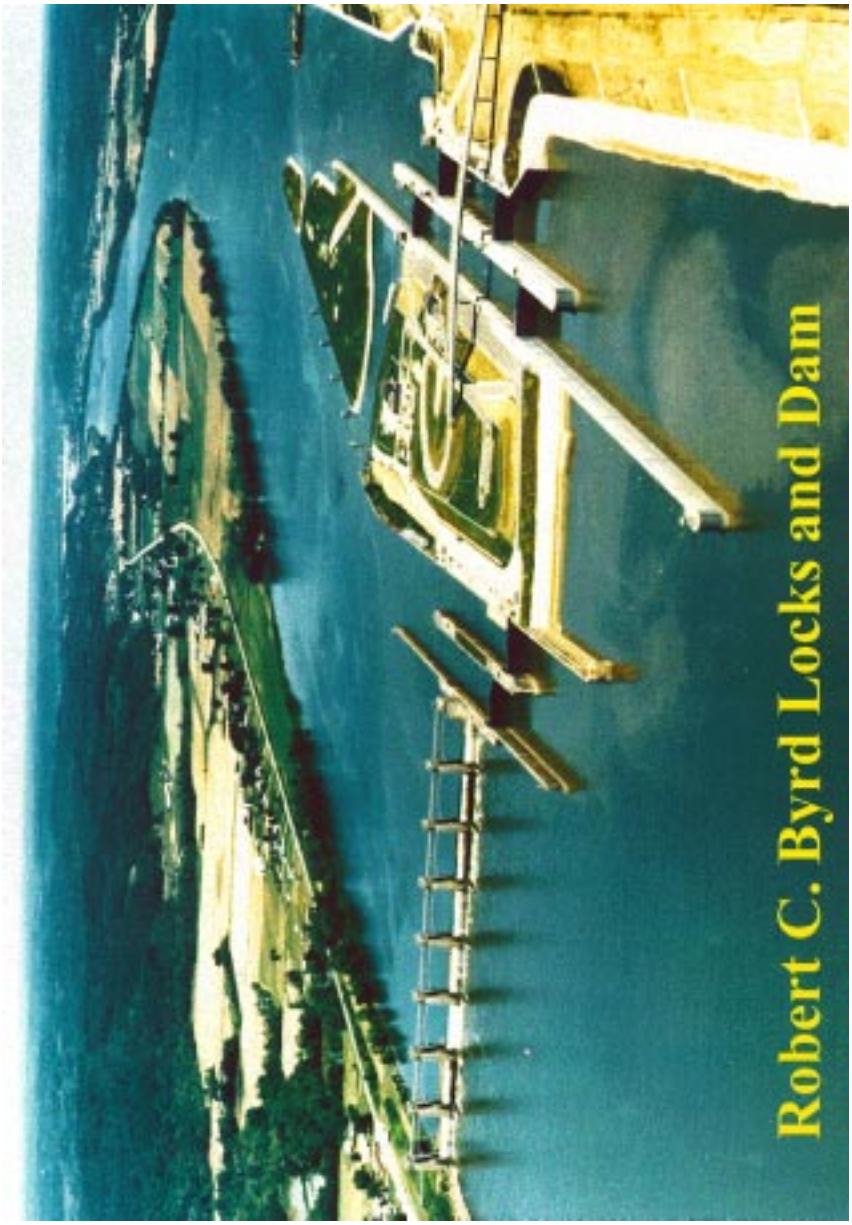
Project	First Cost	BCR
• JT Myers	$182 M	1.8
• Greenup	$176 M	2.5

PED $'s M

	'00	'01
Greenup	0.0	1.3
JT Myers	0.5	2.2

Authority

Basic Study Authority and Current Budget Guidance



RESPONSES BY BARRY PALMER TO ADDITIONAL QUESTIONS FROM SENATOR VOINOVICH

Question 1. As you noted in your testimony feasibility reports will be completed this year on lock improvements at J.T. Myers and Greenup Locks and these projects will be eligible for authorization in this year's WRDA. There are recent allegations that portions of the inland transportation system are under utilized and don't realize the benefits that were projected. Can you comment on the utilization of these two locks?

Response. In 1999 John T. Myers and Greenup locks and dams handled 71 and 70 million tons of waterborne freight, respectively. In tonnage terms this amount ranks the John T. Myers and Greenup facilities as the seventh and eighth most utilized of the Federal Government's 172 navigation locks.

Delays typically average less than 1 hour per tow at each lock, except for those times when the main chamber is closed due to accidents or major maintenance work. Five such events have occurred at Greenup and two at John T. Myers in recent years. A 1999 planned main chamber maintenance closure at Greenup forced traffic to use the small auxiliary chamber for 30 days, causing delays per tow to average 21 hours, with maximum delays reaching 46 hours per tow. A 19-day, unexpected closure the previous year caused tow delays to reach 70 hours at Greenup. Main chamber closures have also occurred at John T. Myers. A 1989 main chamber closure of 44 days caused average delays to reach 48 hours per tow and an 11-day closure in 1995 caused average delays to reach 11 hours per tow (another closure of John T. Myers is scheduled for July 25 through August 4, 2000).

We recognize the vital importance of this maintenance work and appreciate the efforts of the Corps to work with us in scheduling these events whenever possible, however, they cannot avoid these closures. And they cannot schedule nor prevent accidents. As long as there is a small auxiliary lock at these two facilities, any main chamber closure will result in costly delays. The extension of the auxiliary lock at John T. Myers and Greenup will alleviate for the towing industry and our customers the adverse effects that stem from these disruptive closures. The benefit of the proposed navigation improvements is easy to see in this instance.

Question 2. The Corps economic analysis of inland transportation project improvements has recently been criticized for not adequately considering alternative modes of transportation by rail and truck. Can you comment on the feasibility of movement of coal and other products that are currently moving through the Myers and Greenup locks by alternative modes of transportation if these locks are not improved?

Response. Two points are important to remember. First, the waterway system in the Ohio River Basin is an integral part of an intermodal transportation system that includes truck, rail, pipeline and waterborne carriers operating 365 days a year, 24 hours a day. Second, the Corps' regulations require them to consider alternative modes and costs when evaluating waterway improvements. Each study includes a complete transportation rate analysis that estimates the waterway cost, identifies the least cost alternate mode/route, and estimates the cost of using that alternate mode for each waterway movement in the Ohio River System. This analysis is a key piece of the overall, forwardlooking waterway system analysis that they perform.

Again, the problem being addressed in the Myers/Greenup feasibility report is the insufficiency of auxiliary lock capacity during main chamber closures. The Corps' analysis verifies what we in the industry know to be true: the relatively short-duration closures of the main chamber at either the John T. Myers or Greenup projects are very costly to towboat operators, shippers, and the nation. These closures initiate a series of destabilizing, shipper-specific responses. A transportation system that was in balance makes adjustments that include rescheduling shipments, moving to alternate routes, swapping shipments above and below the affected lock, and continuing to use the lock. These reactive measures take time and money to put in-place, and the feasibility of implementing any one of them is specific to the circumstances of the individual shipper.

One thing is very clear, whenever the main chamber closes, transportation costs will be higher. Trucking and rail companies will try to find more equipment by redispatching equipment away from other users, waterborne and overland carriers will experience additional logistics costs, shippers may well switch production to less efficient plants, and towing companies will experience higher operating costs as they wait to use the lock. So while feasible alternatives may exist, they all come at a higher cost to the nation than the best alternative—our inland waterways.

Question 3. Your testimony indicates that there is more than $370 million in the Inland Waterways Trust Fund which is the source of 50 percent of the funding for inland waterway projects. In spite of this surplus you indicate that ongoing inland navigation projects are not being funded at a rate to achieve efficient construction schedules resulting in cost increases and lost benefits. What level of annual construction investment is needed for inland waterways? Do we need "firewalls" or similar mechanism that exist in the highway and airport trust funds to assure a certain level of annual funding for the inland system?

We believe there are adequate funds in the Inland Waterways Trust Fund and projected tax revenue from the 20 cents per gallon levy on diesel fuel from towboats

operating on America's inland navigation system to pay for 50 percent, or one-half, of the cost of currently authorized projects (and perhaps Myers and Greenup improvements) during this decade. About $250 million—$300 million annually could and should be allocated toward lock and dam modernization on America's inland navigation system.

You have rightly identified that monies not appropriated for infrastructure investments which return a benefit to the nation's economy go for consumption spending. The current amount that is not appropriated for inland waterway investment is a raid on the Inland Waterways Trust Fund. Our experience has demonstrated that when these infrastructure investments are foregone, the tax revenue never returns to these programs for investment. While we have no position on the mechanism, we do believe that the Congress should guarantee that all inland waterway taxes and the general treasury matching funds for inland navigation infrastructure investments should be spent.

STATEMENT OF MAYOR DANNEL MALLOY, CITY OF STAMFORD, CONNECTICUT, ON BEHALF OF THE NATIONAL ASSOCIATION OF LOCAL GOVERNMENT ENVIRONMENTAL PROFESSIONALS (NALGEP)

Good morning, Mr. Chairman and members of the Subcommittee. I am Dannel Malloy, Mayor of the City of Stamford, Connecticut, and I am pleased to testify today on behalf of the National Association of Local Government Environmental Professionals about the critical role of the Army Corps of Engineers in the revitalization of America's brownfields.

My testimony will first explain why the Corps of Engineers' mission in brownfields is so important to local communities, why it is consistent with the Corps' existing activities and competencies, and why an investment by this Congress in the Corps' brownfields mission will bring a high return for our citizens and our environment. Second, I will describe the need for Corps' brownfields assistance in Stamford's own efforts to revitalize its abandoned brownfields in our downtown and along our waterfront. I will also describe examples of other localities where the Corps of Engineers can play a major, positive role in brownfields revitalization that improves the quality of our nation's waters. Third, I commend both the Administration and Senator Chafee for proposing to enhance the Corps' mission in brownfields revitalization, and I suggest elements for successful Corps involvement in local brownfields projects.

BACKGROUND ON NALGEP AND THE STAMFORD REVITALIZATION

I am testifying on behalf of both the City of Stamford, and the National Association of Local Government Environmental Professionals, or "NALGEP."

NALGEP represents local government officials responsible for ensuring environmental compliance, and developing and implementing environmental policies and programs. NALGEP's membership consists of more than 130 local government entities throughout the United States and includes many innovative communities, such as Columbus and Cuyahoga County, Ohio; Rochester and Glen Cove, New York; Richmond, Virginia; Kansas City, Missouri; Las Vegas, Nevada; Enid, Oklahoma; Casper, Wyoming; Miami and 18 other cities and counties in Florida; and Stamford, to name a few.

In 1995, NALGEP initiated a brownfields project to determine local government views on national brownfields initiatives such as the EPA Brownfields Action Agenda. The NALGEP Brownfields Project culminated in a report, entitled Building a Brownfields Partnership from the Ground Up: Local Government Views on the Value and Promise of National Brownfields Initiatives, which was issued in February, 1997.

During the past few years, NALGEP has continued its work on brownfields through coordinating work groups of local officials to address the following issues: (1) Brownfields Cleanup Revolving Loan Funds; (2) use of HUD Community Development Block Grants for brownfields; (3) partnerships between business and local government officials to reduce sprawl and promote smart growth; (4) brownfield training and education needs for localities; and (5) the Administration's Brownfields Showcase Community initiative. Local officials have testified on brownfields on behalf of NALGEP several times before this Committee and other Senate and House committees.

As a result of these efforts, NALGEP is well qualified to provide the Committee with a representative view of how local governments, and their environmental and development professionals, believe the Nation must move ahead to create long-term success in the revitalization of brownfields properties.

The City of Stamford is located on Long Island Sound, just 35 miles from New York City. Its diverse population consists of 111,000 people. Stamford has a strong corporate base with four corporations from the Fortune 500 and 13 Fortune 1000 corporations headquartered in Stamford. While Stamford is an old industrial city, settled in 1641, most of the historic manufacturing companies have left Stamford, leaving behind their contaminated industrial sites. In 1998, the City of Stamford became one of 16 communities nationwide to be designated a Brownfields Showcase Community. Showcase Communities are models of brownfields innovation, demonstrating how Federal agency resources can be leveraged together with state, local, and private sector investments to assess, clean up, and redevelop brownfields into high-quality communities.

Stamford has launched two major revitalization initiatives with the assistance of the Corps of Engineers. Along Stamford's harbor front in the south part of the City, we are cleaning up long-abandoned brownfields and creating new manufacturing, housing, and recreational areas for a part of the community that has a 71 percent minority population with 25 percent living below the poverty line.

One project now underway on the waterfront is the new Southfield Harbor Residential Community, located at a contaminated former shipbuilding plant and fuel deport adjacent to a City park. This waterfront development project will consist of approximately 320 rental apartment units, a 68-slip marina, and a publicly accessible harborwalk. The development will bring over $50 million of private investment and is expected to generate 100–200 construction jobs and 12 full-time permanent jobs. This development is cleaning up a former industrial site, creating housing, and opening up this waterfront to City residents for the first time in more than 60 years.

In addition, Stamford has launched a major initiative to revitalize the Mill River Corridor into a vital mixed-use district surrounding a new linear park along the river, which runs through the central city. The Mill River Corridor initiative is the centerpiece of Stamford's plans to create a vibrant urban center with a high quality of life where citizens will want to live, work, and play. Stamford views the revitalization of the Corridor as critical to the City's economic health in the 215 century. The Corridor will help attract new business, thereby creating thousands of new jobs. Moreover, the City's plans to build new affordable housing along the River is essential to ensuring that the City has a diverse base of workers with different skill levels who can fill the jobs of the new economy. The City's plan calls for: the creation of a new center city park in the core of downtown Stamford; a linear park along the river with trails for walking, running, and biking; 900 new units of mixed-income housing in residential neighborhoods surrounding the park; and new commercial mixed-used development to anchor both ends of the corridor. The City has already established a master plan for redevelopment, and made a substantial local investment in the Mill River Corridor project, including nearly $2 million of local funds for land acquisition and planning, with an additional $1.2 million requested in this year's budget.

The Army Corps of Engineers is a critical partner in Stamford's harbor front and Mill River revitalization initiatives. At the waterfront, cleanup and redevelopment of these brownfields are hindered by the need for further environmental assessment, ecosystem restoration, harbor dredging, and other activities for which the Corps is well suited. At Mill River, Stamford needs assistance in a hydrologic study of the river in order to remedy recurring siltation, improve water flow, and reconfigure the flood storage area. The Corps could also play a valuable role in dredging, identifying and remediating any environmental contamination in and around the Mill River, and helping to restore the aquatic ecosystem. Stamford has engaged with the Corps on these issues already, and the agency is conducting a reconnaissance study to help Stamford to overcome these hurdles to our community revitalization. With the Corps' broad expertise across hydrologic, environmental, and community development issues, it can be an ideal partner to the City of Stamford.

THE VALUE OF THE CORPS IN COMMUNITY BROWNFIELDS REVITALIZATION

The Corps of Engineers can be a valuable partner in community brownfields revitalization because it provides services that are needed by local governments; a brownfields mission is consistent with the Corps' existing activities and competencies; and the return on a Corps brownfields investment will be high.

First, the Corps involvement in brownfields will meet an urgent community need. As this Committee well knows, the cleanup and revitalization of brownfields has become a top priority for American communities. There may be as many as 500,000 brownfields that are draining our established localities of vitality, threatening the public health and environment, and thwarting the expansion of local economies, jobs, and tax base. The costs of site assessment and remediation can create a signifi-

cant barrier to the redevelopment of brownfields sites. In particular, the costs of site assessment can pose an initial obstacle that drives development away from brownfields sites. With this initial obstacle removed, localities are much better able to put sites into a development track. In addition, the allocation of public resources for site assessment can provide a signal to the development community that the public sector is serious about resolving liability issues at a site and putting it back into productive reuse. Likewise, resources for cleanup are the missing link for many brownfield sites—a link that keeps brownfields from being redeveloped into productive areas in many communities.

NALGEP and other organizations, like the United States Conference of Mayors, have identified brownfields revitalization as an important national need, and an area proper for Federal involvement. This Committee also has recognized the need for the Federal Government to promote brownfields cleanup through new law, new resources, and new liability clarification tools for the states. I can assure you that brownfields revitalization in Stamford represents one of my top priorities, and the key to many of our housing, economic development, and quality of life needs.

The local need for brownfields assistance is particularly important along the waterways of our cities. River fronts, harbor fronts, and lake fronts in many local communities hold the legacy of our industrial heritage and the contamination left behind by these activities. So too, the revitalization of our waterways with commercial, residential, and greenspace development represents the key to the future revitalization of many American communities. Waterway brownfields redevelopment also poses a unique set of challenges for communities. The difficult issues of water quality improvement, ecosystem protection, flooding and runoff, toxic contamination, and hydrologic engineering make the Corps' expertise in cleanup along the nation's waterways particularly important.

The second reason that Corps' involvement is brownfields revitalization is appropriate is that it is consistent with the existing mission, activities, and competencies of the Army Corps. Addressing contamination that could negatively impact the nation's waters is a natural and appropriate part of the Corps' established environmental mission. The Corps of Engineers is successfully cleaning up brownfields in dozens of American communities already, under authorities including the Section 206 ecosystem restoration program, the Section 205 environmental dredging authority, the range of flood control and streambank erosion programs, and targeted planning and site assessment activities. The Corps is also working closely with the U.S. Environmental Protection Agency to target Federal assistance for brownfields restoration. The Corps has signed a Memorandum of Understanding with EPA to foster interagency brownfields cooperation, supported a number of Brownfields Showcase Communities, and placed personnel at the local level to coordinate local brownfields efforts. Indeed, according to the Corps of Engineers, the agency is facilitating brownfields revitalization in more than 50 local projects nationwide. Although there is a critical need for clearer brownfields authority for Corps' involvement in this area, and a dire need for additional brownfields resources, the Corps' existing work demonstrates a track record of real success and value for American communities.

A third reason that the Corps' role in local brownfields revitalization is valuable and appropriate is that this investment of Federal resources will yield a high return for America's local communities, its citizens, and our environment. Local communities have an opportunity to work in partnership with the Corps and other public and private partners to acquire valuable lands, remove the barrier of environmental contamination, and rebuild vibrant neighborhoods, centers of commerce, urban parks and recreational areas, and high-quality communities. Removing the barrier of contamination from our waterfront brownfields can help create jobs, leverage private sector resources, expand the tax base, reverse urban deterioration, protect health and public safety, slow the sprawling of our metropolitan regions, and keep our communities livable.

On behalf of the many local communities that believe that the Corps has a constructive role to play in local brownfields revitalization, I encourage you to support and expand the Corps' activities in brownfields by creating a clear authority, and new resources, for a Corps brownfields mission.

LOCAL EXAMPLES OF THE VALUE OF, AND NEED FOR, THE CORPS BROWNFIELDS MISSION

There are a growing number of local examples where the Corps' role in brownfields is making a valuable difference. There are also a growing number of localities that need the Corps' assistance to deal with tough environmental challenges along our community waterways. In addition to the harbor front and Mill River projects in Stamford I have already described, I wish to highlight a few other examples:

Kansas City, Kansas and Missouri—In Kansas City, Missouri and Kansas, the Corps has partnered on multiple local flood reduction studies and construction projects that have helped to revitalize contaminated brownfields. The Corps has provided general technical assistance in geographic information system (GIS) development for a brownfields site inventory that will allow the community to integrate local, state, and Federal graphical representations of properties, land use, and economic incentives. The Corps has also designed a riverfront heritage trail, which will use bike and pedestrian facilities to link redeveloped brownfield sites.

In addition, the Corps has worked on specific projects, such as the Blue River Rechannelization Project, which is a major flood reduction project well along in the construction phase; and the Turkey Creek Project, which is now in design. The Corps of Engineers is also exploring the use of WRDA Section 1135 to support the restoration of a 5 acre parcel of a degraded ecosystem at the Riverfront West site into a less degraded, more natural condition. These brownfields areas lie in flood plains and/or have been severely impacted during past flood events in Kansas City. By mitigating the potential of future catastrophic flood events, the Corps' ongoing flood reduction studies and projects will have a major positive impact on the economic viability and redevelopment potential of these brownfields areas.

Glen Cove, New York—The Corps of Engineers has played a key role in the revitalization of a Superfund site and brownfields on the waterfront of Glen Cove, New York. Located on the north shore of Long Island, Glen Cove has ten miles of beautiful waterfront, three public beaches, 300 square acres of nature preserves, and historical mansions built by some of America's wealthiest business leaders. One mile of that waterfront is a toxic Superfund dump and brownfield site. A World War II era munitions plant, the Li Tungsten plant, contaminated the site with low-level radioactive waste. This contamination included the dumping of radioactive and hazardous waste at an adjacent site that once was a municipal dump, which is now part of the Superfund site. For many years, the Li Tungsten plant was a productive part of the community and economy. Today, Li Tungsten has no jobs, provides no taxes, and it no longer contributes anything to the community. The site stands dangerous, polluted, and abandoned.

However, with the assistance of the Corps of Engineers, Glen Cove is successfully cleaning up this waterfront site, and is preparing to establish a premier tourist destination with a waterfront hotel and conference center, high speed ferry to Manhattan and other destinations, and a vibrant mixed-use retail center.

The Corps has supported this project with environmental assessment, dredging and channel reconstruction of the Glen Cove Creek and Mill Pond. The Corps has also played a key role in a study of infrastructure and greenspace improvements that will make this a high quality development that protects the water quality of the community. Moreover, the Corps' assistance helped Glen Cove to leverage an additional $1 1 million in Department of Transportation funding to implement these infrastructure and greenspace improvements.

Cleveland and Cuyahoga County, Ohio—In the Chairman's community of Cleveland and Cuyahoga County, one of the nation's leading brownfields communities, there are a number of brownfields sites along the Cuyahoga River and other water sources where the Corps of Engineers, Buffalo District could play a valuable role. For instance, the Abrams Creek area near the Cleveland airport will need to be assessed for environmental contamination and potentially cleaned up to support airport expansion and economic development in the area.

Providence, Rhode Island—In Providence, another Brownfields Showcase Community, the Corps has helped advance the Woonasquatucket River Greenway Project, which is a planned 4.4 mile greenway park and bicycle and pedestrian path that will include commercial and recreational developments. The Corps has assisted this project, which must overcome the problem of contamination along the riverside properties, by helping Providence to use computer visualization and landscape simulation technologies to plan and design the initiative.

Des Moines, Iowa—The City of Des Moines is engaged in a cost-sharing agreement with the Corps of Engineers to conduct a flood damage prevention survey of the Des Moines and Raccoon Rivers. Riverpoint West is a 300-acre site on the north side of the Raccoon River, immediately adjacent to the Des Moines Central Business District. Des Moines has launched an initiative to clean up and revitalize the Riverpoint West area, which is slated for a mixed-use urban village with approximately 1,000 residential units, 850,000 square feet of office and retail space, and substantial environmental and recreational improvements. Riverpoint West was badly flooded in 1993, and also suffers from significant environmental contamination challenges. Although a new levee constructed by the Corps of Engineers after the 1993 floods will help prevent future flooding, more needs to be done to protect this area. Des Moines is seeking to work with the Corps to conduct additional activi-

ties at this brownfield redevelopment site, including environmental site assessment and the restoration of green space, flora, wildlife management, aquatic and other site infrastructure.

East Palo Alto, California—East Palo Alto is a small community of 25,000 people that has never enjoyed the economic prosperity of its neighboring communities in Silicon Valley. The City has the highest levels of unemployment and poverty and lowest median income in San MateoCounty. In addition, the City has struggled hard to significantly reduce its crime rate, which was one of the highest in the Nation in the early 1990's.

However, the City is moving forward to revitalize the community by cleaning up and redeveloping abandoned brownfield areas. The focus of East Palo Alto's effort is the Ravenswood Industrial Area and the adjacent Four Corners redevelopment area, totaling approximately 135 acres. The City has developed a strategic plan and design for this area, which will be a mixed-use development and employment center with up to 2 million square feet of commercial and high-technology offices and light manufacturing. New, medium-density housing is also planned nearby. The City will seek to promote the location of environmentally sensitive businesses, the use of green building practices, and development that enhances and protects the beauty of adjacent resources such as San Francisco Bay, wetlands, and open space areas. The Four Corners portion is slated for the establishment of a new Town Square area including government buildings, civic space, and commercial establishments. The City expects that redevelopment of the entire Ravenswood Industrial Area will create 4,000 new jobs and generate more than $1 million per year in new tax revenues.

East Palo Alto needs the Corps of Engineers' help to succeed in its Ravenswood revitalization initiative. East Palo Alto seeks to continue its cooperation with the Corps to assess and clean up environmental contamination. In addition, the Ravenswood area has experienced severe flooding from the adjacent San Francisco Bay, making flood damage prevention a top priority. In addition, East Palo Alto needs assistance in the construction of drainage, sewage, and other environmental infrastructure. Moreover, the Corps could assist East Palo Alto to protect and restore the ecosystem of the area, which includes wetlands and other significant natural areas, as well as the challenges of brownfields contamination.

SUGGESTED ELEMENTS OF EFFECTIVE CORPS INVOLVEMENT IN BROWNFIELDS

We understand that Congress is considering how a Corps of Engineers brownfields authority could be established, both under the Administration's WRDA 2000 proposal, and under Senator Chafee's S. 2335 bill, the State and Local Brownfields Revitalization Act of 2000. NALGEP commends you for showing leadership on these important brownfields issues, and encourages you to ensure that the Corps' brownfields authority understands and meets the needs of local governments, including:

1. NALGEP supports an approach that requires the Corps of Engineers to closely consult with appropriate local, state, regional, and Federal officials in the design and implementation of these local brownfields projects.

2. NALGEP supports an approach that requires the Corps to take into consideration how the project will improve public health and the environment, encourage redevelopment of areas with existing infrastructure, and promote the creation or enhancement of parks, greenways, and recreational areas.

3. NALGEP supports the approach of allowing local partners to meet their required non-Federal share of Corps brownfields projects by taking into account the value of land, easements, right-of-ways, and relocations associated with the project, as well as the value of assessment and remediation previously carried out by the local partner at the site. Land acquisition and site activity are typical, appropriate functions carried out by local governments, and should be credited toward the cost-share requirements of Corps involvement at these projects.

4. NALGEP encourages an approach that reduces the required local cost share for those communities who have a limited ability to pay, or are suffering from economic distress.

5. NALGEP also encourages Congress to clearly specify what type of environmental cleanup standards will apply to Corps cleanups of local brownfields sites, by stating that a new brownfields authority does not waive or limit otherwise applicable laws governing cleanups.

6. Finally, NALGEP encourages Congress to authorize a sufficient level of annual resources to allow the Corps of Engineers to meet the large local needs for brownfields resources and assistance.

CONCLUSION

In conclusion, NALGEP and the City of Stamford encourage Congress to move ahead to make the Corps' brownfields mission a part of your overall strategy to strengthen and empower local communities to create environmental quality, economic vitality, and Federal-local cooperation. The involvement of the Corps in brownfields revitalization is needed at the local level, is consistent with the Corps' existing mission and competencies, and will bring a high return on American investment. Thank you for your consideration. This concludes my testimony.

STATEMENT OF HOWARD D. MARLOWE, PRESIDENT OF THE AMERICAN COASTAL COALITION

Chairman Voinovich and members of the Subcommittee, I am Howard Marlowe, President of the American Coastal Coalition. The ACC is a nationwide advocacy organization for coastal communities whose sole mission is to achieve policies that will promote the economic and environmental interests of coastal communities. On behalf of the ACC, thank you for this opportunity to testify.

Since our establishment in 1996, our major focus has been on Federal policies that affect beach restoration. As you know, the Administration announced in 1995 that it would not support the authorization or funding of any beach nourishment projects which it deemed to be new starts. The Senate Environment and Public Works Committee and its House counterpart acted with force and clarity to reject the Administration's position when they adopted Section 227 of the Water Resources Development Act of 1996. That section, which we refer to as the National Shore Protection Act of 1996, declared it to be national policy that the Secretary of the Army should:

- Recommend potential shore protection projects for study by the Army Corps of Engineers;
- Recommend projects for congressional authorization to receive construction funds; and
- Recommend funding for shore protection project studies and construction.

To this day, the Army Corps of Engineers has published no guidance on implementing Section 227 because of strong opposition from the White House Office of Management and Budget. Members of Congress and interest groups such as the American Coastal Coalition spent months negotiating a solution to OMB's concerns about what it claims is the excessive long-term cost of beach nourishment projects. The result of those talks was the adoption in the Water Resources Development Act of 1999 of a major change in the cost-sharing formula for newly authorized shore protection projects. That change will have non-Federal sponsors paying an increased share of those long-term renourishment costs. At the time the Senate Environment and Public Works Committee was considering that change, Dr. Joseph Westphal responded to your questions that the cost-sharing formula being considered by the Committee would result in a change in the Administration's no-new-shore-protection projects policy. Apparently, he was not speaking for the Administration because (a) the President in effect proposed no funding for new beach restoration projects in his Fiscal 2001 budget recommendations, and (b) there is not a single new beach nourishment study or authorization contained in the Administration's WRDA 2000 proposal.

Mr. Chairman, the Administration's shore protection policy is bad for the national economy and the national environment. Furthermore, OMB's dealings with Congress on this subject have been characterized by an array of tactics ranging from falsehoods to bad faith. In WRDA 2000, OMB has taken their commitment to ignoring the will of Congress to new lows by failing to recognize the need for authorizing new shore protection projects and studies and by recommending an automatic deauthorization process that would have an especially harmful impact on existing and future shore protection projects.

Background

According to the U.S. Census Bureau, 54 percent of America's population lives within 50 miles of the coast. That number is growing by 3600 people a day! Millions more Americans and foreign tourists visit coastal communities in the warmer months. The primary attraction for both residents and visitors is the beach. In fact, America's beaches are its single biggest tourist attraction. They are also the source of billions of dollars of local, state and national tax revenues. From t-shirt vendors to banks, airlines, Realtors, and hotels, the beach is a major source of revenues and jobs. Beaches are also a unique part of America's environmental infrastructure. The sand that is so beautiful is also the home of many coastal animals, birds, and plant

species. Beaches are also the best protection against wave damage caused by coastal storms.

From 1955 to 1995, the Federal Government spent an average of less than $30 million a year to help states and local communities restore their public beaches. That is less than the cost of a modest-sized Federal highway interchange! Since 1995, this figure has increased to just over $85 million or three highway interchanges. That $85 million is out of a $4 billion budget for the entire civil works program of the Army Corps of Engineers.

Beaches play an extremely important role in the economic and environmental infrastructure of the United States. First, beaches are an integral part of America's coastal infrastructure. The immense natural resources of the nation's coastal regions are responsible for a significant amount of commercial activity. In 1993, the U.S. commercial fishing industry produced and marketing products valued at $10.8 billion. Saltwater recreational anglers generated $15 billion from 64 million fishing trips. In 1990, 2.15 billion tons of cargo valued at more than $500 billion moved through the nation's 190 seaports.

In 1997, total tourism expenditures in U.S. coastal congressional districts were more than $185 billion, while tourism payroll was almost $50 million and tourism jobs in these districts were more than 2.7 million. Beaches and coastal regions are not only the Number One destinations for domestic tourists. They also are the top destinations for foreign tourists. Each year, the Federal Government receives about $4 billion in taxes from foreign tourists, while state and local governments receive another $3.5 billion. Foreign tourists spent more than $11 billion in Florida in 1992, $2 billion of that amount in the Miami Beach area alone. This Florida spending generates more than $750 million in Federal tax revenues, more than the total received by the State and its local governments combined. Focusing on Miami Beach alone, annual Federal tax revenues from foreign tourists ($2 billion) are about 17 times more than the Federal Government spent on the entire Federal Shore Protection program from 1950 to 1993 ($34 million in 1993 dollars). If the Federal share of beach nourishment averages about $10 million a year, the Federal Government collects about 75 times more in taxes from foreign tourists in Florida than it spends restoring that State's beaches.

In 1998, California's beaches generated $73 billion of direct and indirect benefits to the national economy. The Federal tax revenue portion of those benefits alone was $14 billion compared to far less than half a million dollars that the Federal Government spent on beach nourishment in that state during 1998!

Delaware receives 5.1 million "person trips" each year in a state where just more than 21,000 people actually live in beach communities and another 373,000 people live within day-use travel distance. Beach tourism generates $173.2 million in expenditures each year. Just as significant, beach erosion results in an estimated loss of more than 471,000 visitor days a year, a figure which is estimated to increase to more than 516,000 after 5 years. During that 5-year period, beach erosion will cost an estimated $30.2 million in consumer expenditures, the loss of 625 beach area jobs, and the reduction of wages and salaries by $11.5 million. Business profits will drop by $1.6 million and State and local tax revenues will decrease by $2.3 million. Finally, beach erosion will reduce beach area property values by nearly $43 million over the 5-year period.

Our nation's estuaries are also major tourist and recreational attractions. For example, nature tourism in Corpus Christi, Texas is the fastest growing component of a tourism sector that generates $23 billion annually. Recreational fishing provides aggregate net benefits to the area of $83 million, including $37 million per year in state and local taxes. The economic impact of water quality-dependent uses in Long Island Sound is estimated at more than $5 billion annually. Commercial and¶recreational fishing contributed more than $1.2 billion of the total, while beach going has a direct benefit of more than $800 million annually.

National Shoreline Study

At a recent hearing of this Subcommittee, the Coastal States Organization highlighted the importance of the National Shoreline Study authorized by WRDA 1999. That study will not only provide the first physical catalog in 30 years of the beaches in the United States that eroding, it will also show the economic and environmental costs of erosion to the nation. The ACC fully supports funding the National Shoreline Study. However, we regret that the Administration apparently is using the fact that this study has yet to be completed as an excuse not to recommend the authorization or funding of any new beach restoration projects. It is especially hard to take this excuse with any seriousness when we look at the paltry $300,000 appropriation for this study recommended by the Administration. That figure less than one-third of the amount of money needed in Fiscal 2001 to mount an effective study.

Facts vs. Falsehoods

Given their popularity, economic and environmental importance, and their storm damage reduction benefits, it is surprising that beaches and the communities along the coast are a perpetual target for media attacks. "Playgrounds for the Rich." "Disasters Waiting to Happen." It's time to see how these falsehoods fair against the facts.

- Falsehood: The Federal Flood Insurance Program pays out more in benefits to coastal homeowners than it receives in insurance premiums. Fact: Homeowners in coastal states annually pay in at least 20 percent more in premiums than they receive in flood insurance payments.
- Falsehood: Tens of billions of dollars are being spent in the "endless" and "useless" struggle to restore eroded beaches. Fact: Over the past 45 years, the Federal Government has spent a total of less than $2 billion on beach restoration. That's about $30 million a year. Maintaining our country's beaches is an ongoing effort, but it is far from useless. Studies have shown that every dollar spent to repair and maintain a beach produces at a very minimum $3 to $5 in taxpayer benefits.
- Falsehood: Spending taxpayer money on beach restoration is a subsidy for rich people. Fact: This class-baiting rhetoric is especially pernicious. Social scientists have studied America's beaches. They have found what any of us can conclude with our own eyes: With the exception of shopping malls, sandy beaches attract the most diverse economic, ethnic and racial populations. There is no denying that many of the homes located nearest to any of America's coastlines are owned by families with above-average incomes. But the only beaches that can receive Federal or state money are public beaches with public access.
- Falsehood: Beach restoration efforts are useless. The better approach is to "let nature take its course." Fact: Since the arrival of the first non-Native Americans, humans have built communities and ports along the coast. Ports, navigation channels, and similar development have been an essential ingredient of the economic vitality of America. That development has interfered with the natural flow of sand, causing most of the beach erosion in the U.S. There is no way to "let nature take its course" without reversing the events of the past three centuries.

Mr. Chairman, there are vocal groups who choose to ignore these facts in order to press their case that Federal tax dollars should not be spent on beach restoration. They have found an ally in the White House Office of Management and Budget. They would implement a purposeful policy of neglect of America's eroding coastline. None of these people would consider for a moment a policy of even benign neglect of an endangered species or a wildlife refuge. But their "back to nature" appeal is little more than proposing a policy of malignant neglect. By taking this position, they are threatening irreparable harm to an extremely important economic and environmental national asset.

The American Coastal Coalition as well as most local coastal governments and private citizens want to restore America's eroded beaches and preserve the peoples' opportunity to use this outstanding environmental resource. Our preferred approach to accomplish this goal is to replenish the sand that has been lost because of 300 years of human intervention along the coast. This approach costs money, but it is far preferable to the cheaper alternative of building seawalls to protect coastal property. OMB and its fringe group allies can continue to attack coastal communities or they can join with us in supporting attainable policies that will repair the damage and encourage responsible growth. Calling for the clock to be turned back three centuries is neither responsible nor attainable.

Section 16 of the Administration's WRDA 2000 Proposal

The Administration's proposal for the Water Resources Development Act of 2000 contains a provision (Section 16) that would have the following impact:

First, if construction of a water resources development project or separable element is not initiated within 7 years from the date the project or separable element was last authorized it would automatically become deauthorized.

Second, those water resources development projects and any separable element of such a project, for which funds have once been obligated for construction, shall be de-authorized if congressionally identified appropriations have not been obligated for construction of the project or separable element during any five consecutive fiscal years.

Currently, it takes 1 to 2 years to get a beach nourishment project's reconnaissance study authorized and funded; another year to have the study completed; another year to get the feasibility study funded; 2 to 3 years to get that study completed; another year to get the project authorized. At this point, the clock would start running under the Administration's proposal.

In theory, a project ought to be able to get under construction within 7 years of authorization. For example, if a project is authorized in 2000, it should be able to get funding for actual construction by 2002, with environmental windows possibly holding up actual construction until 2003. But, most of those beach nourishment projects that are up for actual construction funds in fiscal year 2001 to 2002 were authorized in the 1980's! We believe that Corps procedures have undergone some improvement in recent years, but many beach nourishment projects authorized in 1992 and 1996 [projects can only be authorized in years in which Congress enacts a Water Resources Development Act] are not likely to get construction funds until fiscal year 2003 or later. While the Corps needs to do better, Corps procedures and the Administration's refusal to budget for new beach nourishment projects have been significant factors in slowing down the time it takes to get from authorization to construction. Until the Administration is willing to budget for the construction of shore protection projects and Corps procedures improve, the 7-year automatic de-authorization provision may harm shore protection that are needed and that, by all measures, are viable.

Every authorized Federal beach nourishment project has an economic life of up to 50 years. Over that life, the authorization provides for periodic renourishment. If the project "performs" well, the period between initial construction and the first periodic renourishment may be longer than the 5 years allowed by the Administration's proposal. The same may be true for the time period between subsequent periodic renourishments. That "good performance" would be rewarded with an automatic deauthorization! This is one Seal of Approval from the Feds that local communities don't need. Once again, the Administration's refusal to budget for the funding of any activity related to a beach nourishment project that it did not recommend in the first place also can hold up congressional funding for periodic renourishment.

The American Coastal Coalition opposes Section 16 and strongly urges that it not be included in this Committee's WRDA 2000 bill. We see this proposal as another in the Administration's efforts to kill the Federal beach restoration program.

WRDA 2000 Policy Changes

There are a number of changes that can be made which will improve the effectiveness and efficiency of the Federal beach restoration program. I will summarize three of these and then emphasize a fourth which is actually tops on the legislative agenda of the America Coastal Coalition.

Congress in WRDA 1999 has already called on non-Federal sponsors to shoulder a greater share of the costs of beach nourishment projects. Two states, New Jersey and Florida, have increased the dedicated funds they already had in place for these projects. Texas, California, and Hawaii each appropriated significant sums last year for their state's beach nourishment efforts. The ACC believes that more coastal states must make long-term commitments to fund their share of these projects.

In many areas of the country, beach erosion has either been caused or exacerbated by other Federal activities, such as navigation and port maintenance projects. The solution is not to assign blame, but for the Federal Government to assume its statutory responsibility to mitigate the damages to beaches which these projects have caused. Unfortunately, there are far too many instances where the Corps of Engineers has tried in recent years to deny that responsibility.

On the other hand, we applaud the Corps for efforts it is making to approach its coastal missions in a regionalized, integrated manner. For Fiscal 2000, Congress funded a regional sediment management program within the jurisdiction of the South Atlantic Division and the Mobile District Offices of the Corps which is an important effort to integrate the planning and execution of navigation and beach restoration projects. We hope that Congress will appropriate funds to begin similar efforts in other parts of the country in Fiscal 2001. The ACC also welcomes the efforts of the San Francisco Division of the Corps to establish a task force that puts the Corps, state agencies, local governments, and other interests together in a concerted effort to plan for the combined coastal water resources needs within its jurisdiction.

Recreation is Not a Four-Letter Word

There is at least one statutory initiative that can be undertaken in WRDA 2000 that will have a major benefit for the Federal beach restoration program. The American Coastal Coalition proposes that recreational benefits be given equal consideration with storm damage reduction and environmental restoration nefits in the all-important calculation of a project's estimated benefit-cost ratio.

During the "study" phase of a beach erosion control project, the Army Corps of Engineers develops a plan which maximizes net national economic development (NED) benefits. An essential element of this plan is the formulation of a benefit-cost ratio (BCR). Under current budget policies, the Corps will not recommend the

construction of any project whose benefits do not exceed its costs. Costs are determined by the outlays required to provide initial project construction and periodic renourishment over the life of the project. Benefits are those which increase the economic value of the national output of goods and services.

Corps policy requires that at least 50 percent of the cost of the project be covered by storm damage reduction benefits. An equal amount of recreation benefits can be used for project justification as long as the recreation benefits are incidental, i.e., no additional material is added to accommodate recreation. "Shore protection projects (particularly those featuring beachfill) are innately conducive to beach and shoreline recreational activities. Provided that hurricane and storm damage reduction benefits combined with incidentally generated recreation benefits limited to an amount equal to hurricane and storm damage reduction benefits are sufficient in themselves for economic justification, the Corps will propose undertaking the project as a HSDR project....If, in this limiting initial evaluation, a greater amount of recreation benefits is required to be combined with hurricane and storm damage reduction benefits in order to demonstrate the economic justification, the project is characterized as being primarily for recreation. As such, it will not be proposed by the Corps as a Federal undertaking, since recreational developments are not accorded priority in Civil Works decisions." (Emphasis added)

There is no statutory authority for this decision by the Corps of Engineers to accord recreation a lower priority in its decisions regarding which beach restoration projects should be recommended for Federal authorization. This was a policy decision made by various executive branch entities in the mid-1980's. Whatever the basis for their decision, we urge this Committee to require that projects whose primary benefit is recreational be accorded the same budgetary priority as those whose primary benefit is storm damage reduction or environmental restoration. The 1946 law which gave the Corps authority to do beach restoration work states:

"With the purpose of preventing damage to the shores and beaches of the United States, its Territories and possessions and promoting and encouraging the healthful recreation of the people, it is declared to be the policy of the United States....to promote shore protection projects and related research that encourage the protection, restoration, and enhancement of sandy beaches, including beach restoration and periodic beach nourishment, on a comprehensive and coordinated basis by the Federal Government, States, localities, and private enterprises." (emphasis added)

Federal policy should base beach nourishment assistance on the totality of the economic benefits it provides. To limit those benefits to storm damage reduction ignores the equally important economic impact of beach tourism, eco-tourism, recreational fishing, and other similar benefits.

Prior to the 1986 law, beach restoration projects were often justified as recreational projects. These included major projects such as Miami Beach which, prior to its restoration in the late 1970's, had a seriously eroded beach which had resulted in a significant loss of revenue from tourism. The restoration of this "recreational" beach has produced billions of dollars of local, state, and national economic benefits which far exceed the cost of this project.

Beaches are public parks that are part of the coastal infrastructure and environment. They provide recreational, storm damage reduction, and environmental benefits. The focus of Federal policy should be to restore and maintain these parks so that the public can use them.

There are regions of the country (for example, the Gulf Coast states and Hawaii, among others) where coastlines are less developed. The distribution of Federal beach restoration funds is less likely to go to these areas because their proposed projects do not achieve a benefit/cost ratio that is equal to or greater than 1:1. Proposed projects in more-developed areas typically have no difficulty achieving a BCR of greater than 1:1. Neither the Army Corps of Engineers nor Congress favors Federal financial assistance for projects whose BCR is 1:1 or less.

Similarly, since "budget policy" as implemented by Corps of Engineers regulations has determined that the beach restoration program is one whose primary purpose is hurricane and storm damage reduction, it provides no assistance to public beaches (even those that are well-developed, such as Waikiki), where there is not a significant history of severe coastal storms. Much of the beach erosion throughout the United States is caused by the interruption of normal sand flow by various human-induced factors such as ports and navigation channels as well as dams. These facilities interrupt the natural flow of sand, making it difficult if not impossible for nature to repair eroded beaches. As noted above, the underlying Federal law states that the basis of Federal financial assistance should be "preventing damage to the shores and beaches of the United States, its Territories and possessions and promoting and encouraging the healthful recreation of the people." These are the only statutory purposes determined by Congress which support the Federal role in beach

nourishment, and they should not be modified by either Corps of Engineers or Administration policies.

Therefore, Mr. Chairman, the American Coastal Coalition proposes the following change in law which we urge this Subcommittee to include in its WRDA 2000 bill:

Proposed Amendment:

Section 1. 33 U.S.C. 426 e(2) is amended as follows:

- "(B) Recommendations for new shore protection projects

(i) In general—

The Secretary shall recommend to Congress the authorization or reauthorization of shore protection projects based on the studies conducted under subparagraph (A). In making such recommendations, the Secretary shall develop and implement procedures which treat recreational, hurricane and storm damage reduction, and environmental restoration benefits equally."

Section 2. Strike Section 103 (c)(4) of the Water Resources Development Act of 1986 and redesignate the following paragraphs accordingly.

Explanation: Section 1 directs the Assistant Secretary of the Army (Civil Works) to develop and implement regulations which treat recreational, hurricane and storm damage reduction, and environmental benefits equally in determining the benefit-cost ratio for a proposed beach nourishment project. This would only apply to new projects.

Section 2 strikes the provision in WRDA 1986 which establishes a separate, lower Federal cost-share for projects whose primary purpose is recreational.

WRDA 2000 Beach Restoration Project Authorizations

The following is a list of only those project or study authorizations of which we are currently aware. We believe each of these merits inclusion in WRDA 2000.

Lee County, Florida: The County is seeking a modification of its original congressional authorization to give it status as a reimbursable project under Section 206 of WRDA 1992. The Corps of Engineers has never implemented guidance for reimbursable beach restoration projects, alkthough it has issued guidance for statutory provisions which have authorized reimbursable navigation projects. This lack of guidance makes it quite difficult for a non-Federal sponsor to proceed using the provisions of Section 206. The experience of Panama City Beaches, Florida, which was accorded Section 206 status in WRDA 1996 provides a strong indication that. For those communities that can afford to "front" the Federal share of construction costs, significant savings can be achieved in the time it takes to complete construction and project cost. These are taxpayer savings at the Federal, state, and local levels. With respect to all types of reimbursable water projects, the American Coastal Coalition states its opposition to the funding limits placed on these projects by Section 102 of the Energy and Water Development Appropriations Bill for Fiscal 2000.

Barnegat Inlet to Little Egg Inlet, New Jersey: This project is unfortunately a poster child for the harm that can be done by the Administration's "no-new-shore-protection-projects" policy. The failure to get an authorization of this project in WRDA 2000 could delay construction from 2002 until 2004. Delays have a price which can be expressed in the economic and environmental cost of increased erosion as well as higher construction costs caused by inflation.

Maui, Hawaii: A significant portion of the beaches of this island county are suffering from erosion. There are no federally authorized beach restoration projects in any part of Hawaii except Waikiki. The beaches of Maui, just as others in Hawaii, are suffering from erosion. We support funding a reconnaissance study followed by a feasibility study which will determine how the Federal Government can partner with the State and the county to restore one portion of Maui's shoreline (in the Kihei region) fully factoring the environmental restoration and recreational benefits of this project.

Cameron Parish, Louisiana: There are two projects in this parish where Gulf sediments that flow from east to west are being blocked by jetties associated with federally maintained navigation channels. One is on the west side of Calcasieu Ship Channel West Jetty and the other is on the west side of Grand Chenier West Jetty. This is an example of the mitigation responsibility discussed earlier in my testimony. The State has undertaken several surveys of the fast-eroding beach in this area. We recommend that a study be authorized in WRDA 2000 that will examine the feasibility of undertaking a beach or other type of shoreline restoration study.

Section 103 Program: The Corps of Engineers needs increased authority to undertake Small Beach Erosion Projects under its Section 103 Continuing Authorities program. The current authorization limit of $30 million a year and $3 million a project should be raised to $50 million a year and $5 million per project. There are many

projects on the Gulf and West Coasts, as well as Hawaii, which are likely candidates for this category or beach restoration program.

San Francisco, California: Ocean Beach in San Francisco is another example of the need to give the Corps of Engineers authority to "think outside the box" so that it can prepare a plan to restore a beach which is heavily used by the public. The authorization for study this project (adopted by the then-House Committee on Public Works and Transportation on August 3, 1989) should be expanded to include assessing its potential to provide environmental restoration benefits as well as to protect public recreation and public facilities endangered by the erosion of the beach, regardless of whether that erosion is caused by storm events. This beach is an excellent example of a coastal public park. Its restoration should be eligible for Federal assistance.

Raritan Bay and Sandy Hook Bay, New Jersey: There are several New Jersey Bayshore communities that are unprotected from storm damage and coastal erosion. Increased urbanization and loss of protective beaches in this particular area of the State have made low-lying residential and commercial structures dangerously susceptible to flooding. Port Monmouth and Cliffwood Beach are two segments of this project that should be authorized in WRDA 2000 subject to completion of a Chief's report.

Dare County, North Carolina: This is also a much-needed beach restoration project that we recommend for authorization subject to a Chief's report. A feasibility study is currently being completed for this economically and environmentally important area of the East Coast shoreline.

We ask for the Subcommittee's approval to provide information on additional beach restoration project provisions for WRDA 2000 as more information becomes available to us, and we thank the Subcommittee for this opportunity to present our views.

KING COUNTY, WASHINGTON,
KING COUNTY EXECUTIVE,
May 16, 2000.

Hon. GEORGE VOINOVICH, *Chairman,*
Subcommittee on Transportation and Infrastructure,
Committee on Environment and Public Works,
U.S. Senate,
Washington, D.C. 20510

DEAR SENATOR VOINOVICH: I respectfully request that the enclosed testimony on the Water Resources Development Act of 2000, written by me on behalf of King County, be included in the formal hearing record.

King County has a strong interest in provisions of the bill related to the restoration of salmon habitat in Puget Sound and the adjacent surrounding waters. The County is strongly committed to the restoration of salmon populations in Puget Sound, listed recently under the Endangered Species Act (ESA). The Puget Sound Restoration Program that is included in the bill would provide much needed Federal assistance, through the U.S. Army Corps of Engineers, to our efforts for salmon habitat restoration in the Puget Sound area.

Please feel free to direct questions or comments to Dennis Canty, Funding Coordinator, King County ESA Policy Office, at (206) 296–8394.

Thank you in advance for your consideration.

Sincerely,

RON SIMS, *King County Executive.*

STATEMENT OF RON SIMS, COUNTY EXECUTIVE KING COUNTY, WASHINGTON

Mr. Chairman and Members of the Subcommittee: My name is Ron Sims. I am the County Executive for King County, Washington. Thank you to, opportunity to testify on the Water Resources Development Act of 2000.

King County lies along the eastern shore of Puget Sound and includes the cities of Seattle and Bellevue. The County has the largest share of the Puget Sound basin among the 14 counties that comprise the basin, with more than 2,000 square miles of land and 100 miles of saltwater shoreline within the basin.

I respectfully request that the Subcommittee authorize the Corps of Engineers to participate with local agencies in planning and implementing ecosystem restoration projects in the Puget Sound region, as proposed in S. 2228 and the Administration's WRDA proposal. I recognize the many competing priorities that the Committee is

facing in developing WRDA 2000, and know you will have difficult decisions to make about what to include in the bill. I'd like to relay why ecosystem restoration work in Puget Sound is a top priority to King County and the Pacific Northwest, and why a major national commitment to the effort is warranted.

A little more than 1 year ago we had the first of what are likely to be many salmon stocks in Puget Sound listed under the Endangered Species Act. King County and our neighboring counties are the first major urban area in the United States to face an ESA listing of a species as widespread as chinook salmon. Threatened salmon swim through our industrial areas, our cities and suburbs, and our farms and forests. Can we restore the chinook salmon, a signature of the environment, cultural, and economy of the Pacific Northwest? Can we do so in a way that also protects our economy, a regional and national powerhouse? For the sake of the salmon, our communities, and the future of the ESA itself, we cannot fail.

Salmon recovery in Puget Sound will require the rebuilding of salmon habitat on an unprecedented scale. One of the biggest factors in decline of salmon nuns in our region has been damage to habitat from the incremental affects of urban development, timber harvest, farm clearing, flood control, channel and harbor maintenance, and many other day-to-day activities over a century of settlement. The legacy is Landscape pockets of high-quality habitat but major areas spread trout the 17 watersheds of the Puget Sound basin where habitat has been lost or degraded. Restoration of this habitat is a fundamental part of our salmon recovery strategy.

We need your help. King County has joined with the U.S. Army Corps of Engineers to cosponsor eight habitat restoration projects since 1997, and we have found the agency to be a capable and enthusiastic partner. Corps assistance has allowed us to undertake habitat restoration projects that would have been impossible without the agency's technical and financial assistance. We would like to see the Corps' support available to communities throughout the Puget Sound basin.

I am delighted that President Clinton and the Washington Congressional delegation have shown support for this effort through the Administration's WRDA bill and S. 2228. There are several elements of S. 2228 that I hope you will integrate into WRDA 2000. Most importantly, I urge you to authorize the program at the $125 million level proposed in S. 2228. The Puget Sound basin is large, with 17 watersheds comprising 13,000 square miles, an area larger than the state of Maryland. As I've stated before, habitat restoration work is needed throughout the basin if we're to have any hope of saving salmon in Puget Sound. Spread out over 8 years and among projects with an average Federal cost of $1 million, the authorization of $125 million would allow 15 of the highest priority projects a year to be completed. Over the course of the program, this level of commitment would make a big dent in the hundreds of restoration projects that are urgently needed to rebuild salmon populations.

I also recommend the provisions of S. 2228 regarding selection of projects under the program that direct the Corps to consult with Federal, state, and local agencies and use prior plans and studies to prioritize and select projects. These provisions will ensure that the program is efficient, targeted to on-the-ground results, and fully compatible with other restoration efforts in the region.

The third aspect of S. 2228 that I'd like to highlight to you is how project costs are divided between the Federal Government and non-Federal sponsors. Consistent with other Corps habitat restoration programs, S. 2228 provides a greater Federal contribution in areas that are affected by a prior Corps project. In addition, S. 2228 waives part of the cost-sharing requirement for projects cosponsored by an Indian tribe. I strongly support these provisions.

My discussions with local government, tribal, environmental, and business leaders around Puget Sound indicate that there is strong support for S. 2228 and the partnership it will create. King County and our neighbors around Puget Sound stand ready with funding, projects, and staff expertise to match the Federal commitment in this bill. King County alone has invested more than $60 million in salmon projects and programs in the last decade, and I can assure you that we are ready to rise to the funding challenges of this new program.

I deeply appreciate the bipartisan support for salmon recovery demonstrated by the Washington Congressional delegation, and would particularly like to thank Senators Murray and Gorton and Representatives Inslee and Dicks for their leadership on this legislation. I'd also like to recognize and thank the other cosponsors of House version of this bill, Representatives Metcalf, Baird, Smith, and McDermott.

Thank you for the opportunity to testify and I look forward to a long and fruitful partnership for the recovery of Puget Sound salmon.

STATEMENT OF CHRIS ENDRESEN, COMMISSIONER KITSAP COUNTY, WASHINGTON

Mr. Chairman and Members of the Subcommittee: My name is Chris Endresen. I am a Commissioner for Kitsap County, Washington. Thank you for the opportunity to testify on the Water Resources Development Act of 2000.

Kitsap County lies within Hood Canal, and the Puget Sound basin as a whole. We have a vested interest in the recovery of Puget Sound Chinook, and Hood Canal Summer Chum. These species have all been listed as threatened by the National Marine Fisheries Service. Not only are these resources important to our economy, they are also an integral part of our lives in the Pacific Northwest.

I respectfully request that the Subcommittee authorize the Corps of Engineers to participate with local agencies in planning and implementing ecosystem restoration projects in the Puget Sound region, as proposed in S. 2228 and the Administration's WRDA proposal. I recognize the many competing priorities that the Committee is facing in developing WRDA 2000, and know you will have difficult decisions to make about what to include in the bill. I'd like to relay why ecosystem restoration work in Puget Sound is a top priority for the Pacific Northwest, and why a major national commitment to the effort is warranted.

Salmon recovery in Puget Sound will require the rebuilding of salmon habitat on an unprecedented scale. One of the biggest factors in decline of salmon runs in our region has been damage to habitat from the incremental affects of urban development, timber harvest, farm clearing, flood control, channel and harbor maintenance, and many other day-to-day activities over a century of settlement. The legacy is a landscape with pockets of high-quality habitat but major areas spread throughout the 17 watersheds of the Puget Sound basin where habitat has been lost or degraded. Restoration of this habitat is a fundamental part of our salmon recovery strategy.

We need your help. Through the Hood Canal Coordinating Council we have begun working with the U.S. Army Corps of Engineers on project discussions and planning and have found the agency to be enthusiastic about our cause. Corps assistance would allow us to undertake habitat restoration projects that would be impossible without the agency's technical and financial assistance. We are anxious to see the Corps' support extended into areas throughout Puget Sound where they have not been able to work before.

I am delighted that President Clinton and the Washington Congressional delegation have shown support for this effort through the Administration's WRDA bill and S. 2228. There are several elements of S. 2228 that I hope you will integrate into WRDA 2000. Most importantly, I urge you to authorize the program at the $125 million level proposed in S. 2228. The Puget Sound basin is large, with 17 watersheds comprising 13,000 square miles, an area larger than the state of Maryland. As I've stated before, habitat restoration work is needed throughout the basin if we're to have any hope of saving salmon in Puget Sound. Spread out over 8 years and among projects with an average Federal cost of $1 million, the authorization of $125 million would allow 15 of the highest priority projects a year to be completed. Over the course of the program, this level of commitment would make a big dent in the hundreds of restoration projects that are urgently needed to rebuild salmon populations.

I also recommend the provisions of S. 2228 regarding selection of projects under the program that direct the Corps to consult with Federal, state, and local agencies and use prior plans and studies to prioritize and select projects. These provisions will ensure that the program is efficient, targeted to on-the-ground results, and fully compatible with other restoration efforts in the region.

The third aspect of S. 2228 that I'd like to highlight to you is how project costs are divided between the Federal Government and non-Federal sponsors. Consistent with other Corps habitat restoration programs, S. 2228 provides a greater Federal contribution in areas that are affected by a prior Corps project. In addition, S. 2228 waives part of the costsharing requirement for projects cosponsored by an Indian tribe. I strongly support these provisions.

Our discussions here in Hood Canal among local governments, tribes, volunteer groups, fish enhancement groups, environmental groups, and others indicate strong support for S. 2228 and the partnerships it will create. We, both individually, and through the Hood Canal Coordinating Council, stand ready with funding, projects, and staff expertise to match the Federal commitment in this bill. We have invested countless hours of local government staff and volunteer time on salmon recovery efforts and projects. We know more needs to be done and are ready to do it with the right expertise and help. We believe that the Corps is that help and expertise that we desperately need in our rural area.

I deeply appreciate the bipartisan support for salmon recovery demonstrated by the Washington Congressional delegation, and would particularly like to thank Senators Murray and Gorton and Representatives Inslee and Dicks for their leadership on this legislation. I'd also like to recognize and thank the other cosponsors of House version of this bill, Representatives Metcalf, Baird, Smith, and McDermott.

Thank you for the opportunity to testify and I look forward to a long and beneficial partnership for the recovery of salmon in Hood Canal and the whole of Puget Sound.

LEE COUNTY'S CONCERNS WITH ADMINISTRATION'S WRDA 2000 PROPOSAL

This paper summarizes fundamental concerns with the Administration's proposal based on the concepts, authorities and processes that would shape future water management in South Florida under this draft legislation. We are not, at this time, listing all of the specific problems we have with many of the provisions.

1. Concern: The Administration's proposal alters the balanced purposes for the existing Central and Southern Florida (C&SF) Project and, by amending the balanced purposes that were reaffirmed in WRDA 96, eliminates this balance for the future of this entire project.

Remedy: The balanced purposes for both the existing and modified C&SF Project should be reaffirmed while providing that the primary purpose of the Comprehensive Plan is ecosystem restoration, preservation and protection.

2. Concern: The assurance provisions preempt Florida law governing water allocations and reservations and preclude comprehensive water management by the local sponsor. They fundamentally alter current Federal policy. These provisions establish unprecedented Federal water rights, and Federal authority and control of water quality and quantity.

Remedy: Assurances can be provided by utilizing the Project Implementation Reports for each project component under the Plan which can, by agreement of the Secretary and local sponsor, and consistent with State Law: (1) allocate and reserve the new water supply made available, (2) otherwise provide for the allocation of any other benefits and (3) establish the component's operating criteria necessary to provide the allocations and other benefits.

3. Concern: The Administration's proposal regarding Project Implementation Reports is vague and is inconsistent with representations from the Restudy team that these Reports will contain all the information needed for a full feasibility report and more. These Reports provide an opportunity to address assurance issues with a more complete decisionmaking document.

Remedy: These Reports should meet the requirements of the U.S. Water Resources Council's Principles and Guidelines and provide all information needed to support Congressional authorization, approval under state law, and answer all questions regarding the allocation of benefits and achievement of Project and Comprehensive Plan purposes.

4. Concern: The Administration's proposal authorizes specific project components and other undefined components "consistent with the plan." These are all project components whose value, cost-effectiveness and benefits have not been demonstrated by feasibility level engineering, economic and environmental studies. There are no reliable cost estimates on which to base authorization for appropriations.

Remedy: Authorize project modifications after Congress has been able to review a completed and fully coordinated feasibility or Project Implementation Report.

5. Concern: The Administration's proposal references the Chiefs Report of June 22, 1999, that includes additional commitments that were not part of the Plan reviewed in consultation with the State and were included without notice or opportunity for public comment. If implemented, these conditions would destroy the balanced purposes of the Plan, have substantial adverse impacts on State interests, and substantially increase project costs.

Remedy: All references to the Chiefs Report should be deleted from the Bill, confirming that the Plan is based on the Recommended Plan in the document of April 1999.

6. Concern: The way the Administration's proposal approves the Comprehensive Everglades Restoration Plan.

Remedy: Approve the Comprehensive Plan as a guide and framework for a continuing planning process to answer remaining environmental and technical questions, requiring periodic updates at the time further Congressional authorizations are requested.

7. Concern: The Administration's proposal acknowledges the need for but does not provide a full and equal partnership between the State and Federal Governments.

Remedy: In addition to deleting provisions by which Federal allocation of water preempts state law, the bill should provide for (1) equal cost sharing of the Central and Southern Florida project including construction of project components and operations and maintenance, (2) equal decisionmaking for operating protocols in PIR agreements and, (3) under programmatic regulation require consultation with, not concurrence by, the Secretary of the Interior.

8. Concern: Compliance with water quality requirements is not ensured. Remedy: Require that, prior to authorization, project components include features necessary to ensure that all discharges meet applicable water quality standards and water quality permitting requirements.

STATEMENT OF THE NATIONAL ASSOCIATION OF FLOOD AND STORMWATER MANAGEMENT AGENCIES

The National Association of Flood and Stormwater Management Agencies (NAFSMA) is pleased to submit the following comments for consideration as the Subcommittee considers the Water Resources Development Act of 2000.

NAFSMA represents more than 100 local and state flood control and stormwater management agencies serving a total of more than 76 million citizens and has a strong interest in this important legislation. NAFSMA supports this biennial process as a means to seek new projects, modify previously authorized projects, and to seek policy changes that support programs that mitigate flood losses and enhance watersheds.

NAFSMA's members are public agencies whose function is the protection of lives, property and economic activity from the adverse impacts of storm and flood waters. The mission of the association is to advocate public policy, encourage technologies and conduct education programs to facilitate and enhance the achievement of the public service functions of its members. Many of NAFSMA's members are currently involved in ongoing water resources projects with the Corps of Engineers and work closely with the Federal Emergency Management Agency as participants in the National Flood Insurance Program.

Since the organization was formed in 1979, NAFSMA has worked closely with the U.S. Army Corps of Engineers in numerous efforts. Our members have supported the concept of cost sharing as first authorized in WRDA 86 and a group of our members worked closely with the Corps to redesign what is now the Partnership Cooperation Agreement in the early 1990's. We have supported new initiatives such as the Corps Challenge 21 program as a necessary complement and vital tool to add to the Corps ability to meet environmental challenges in their traditional water resource projects.

We urge you to consider these comments and to utilize them in your deliberations on WRDA 2000. We appreciate your consideration. Please feel free to call NAFSMA Executive Director, Susan Gilson, at 202–218–4133 if you have any questions or would like further information.

NAFSMA COMMENTS ON THE ADMINISTRATION'S PROPOSED WRDA 2000

Section 4—Watershed and River Basin Assessments

NAFSMA supports the Corps new perspective in accomplishing its watershed studies that allows for multi-objective multi-purpose planning and investigation in the development of its watershed management plans.

NAFSMA members utilize all available means (private, local, state and Federal programs and funding sources) in order to provide and maintain the flood protection projects and programs necessary to protect life and property. Many of the projects needed are of the scope and magnitude that local and state programs do not have the resources to implement and the Federal Government is a much-needed and valued partner. NAFSMA members realize that by mitigating flood losses, either structurally or non-structurally is a better posture for government than having to respond to flood disasters with Federal, state or local programs.

NAFSMA supports the proposed 75 Federal/25 non-Federal sponsor cost sharing formula for the proposed watershed and river basin assessments. NAFSMA also supports the proposed authorization level of $15,000,000.

Section 14—Structural Flood Control Cost-Sharing

NAFSMA is strongly to the administration's proposed reduction in the Federal contribution to Corps-partnered structural flood control projects to a 50 Federal/50 local cost sharing formula.

The NAFSMA membership strongly opposes a reduction of the Federal commitment to flood management projects as a tool for reducing the number of structural flood management projects. In many cases a structural project is the only viable alternative to provide needed flood protection for existing development. NAFSMA strongly encourages the committee to reject the administration's proposal and instead look at providing incentives for rewarding environmentally sensitive project components. In most cases, the local governments would opt for the nonstructural alternative, if the solution would provide the needed flood protection.

NAFSMA supports the current Federal project cost sharing of 65 percent Federal/35 percent local and further encourages the development of incentives for environmentally sensitive project components. NAFSMA encourages the subcommittee to allow the project cost sharing formula to be modified upward to 75 percent Federal/25 percent local for federally partnered flood control projects with environmentally protective features.

NAFSMA has supported cost sharing since its inception in WRDA 86. The original partnership has already been altered when Congress reduced the structural flood control formula to 65 Federal/35 local share. NAFSMA urges that Congress move to reject the administration's current proposal, which would even further erode the partnership launched between the Federal and non-Federal partners in WRDA 86.

Section 16—Project De-Authorizations

NAFSMA also encourages the Corps of Engineers to develop guidance and policies for de-authorizing all or portions of federally authorized projects that have exceeded their useful life or in situations where other alternatives exist or can be implemented that provide the same level of benefits as the original project. Over a period of as little as 50 years, inevitable aging, erosion or deterioration results in operation and maintenance costs that equal or exceed the costs that would be incurred through the implementation of longer lasting, less costly and more environmentally sensitive alternatives.

De-authorizing Corps projects in this manner also significantly decreases administrative costs for the Corps and the local sponsors with regard to the reporting of the condition of such projects, thus allowing all parties to use their chronically limited funds for actual public protection rather than for administrative activity.

Section 17—Floodplain Management Requirements

NAFSMA opposes including the language "adopt and enforce" after the word policies in Section 402 of the Water Resources Development Act of 1986 [100 Stat. 4133] as proposed in Sec. 17 of the Administration-drafted WRDA 2000 bill. Requiring the nonFederal sponsor to carry out enforcement activities in this area goes beyond the spirit of the partnership as outlined in WRDA 86 and amendments.

ADDITIONAL NAFSMA ISSUES WHICH NEED TO BE ADDRESSED IN THE WATER RESOURCES DEVELOPMENT ACT

NAFSMA encourages the Federal Government to make sufficient annual appropriations to support those projects and programs previously authorized and those to be authorized.

Feasibility Study Cost Sharing

NAFSMA supports raising the cost sharing on feasibility studies from a 50 percent Federal/50 percent local share to the same 65 percent Federal/35 percent non-Federal share that applies to new construction on flood control projects. NAFSMA also supports that the local feasibility cost sharing requirements be met by local in-kind services.

Project Cost Issues:

Recognition of In-Kind Contributions

NAFSMA would also support a change in the current provisions governing the percentage of cash and in-kind service that the local partner could use to meet the project's cost sharing requirements. NAFSMA urges that a provision be included to allow the entire local share to be met through "in-kind" service contributions.

NATIONAL ECONOMIC DEVELOPMENT (NED)

NAFSMA supports a review of the current NED policy to determine if existing policy drives projects away from more environmentally friendly non-structural flood management solutions. NAFSMA members would be interested in participating in a national discussion on the Corps National Economic Development policy.

NAFSMA members are concerned that there are projects that are multi-objective, promote river restoration and include environmental enhancements that don't meet the current NED policy. We are encouraged by the Corps' internal review of planning guidelines which seem to move us toward this direction.

NAFSMA advocates the Federal Government to assure the true costs and benefits incurred by the local sponsor for LERRDs, construction, environmental mitigation, operation and maintenance are considered during the feasibility phase of the project. The true costs are those costs mandated by laws, rules and regulations of local, state and Federal Governments. Local governments often find themselves in situations where they have many additional costs to meet the local share, such as compliance with state and local regulations which are not accurately reflected in cost sharing formulas.

NAFSMA supports non-Federal sponsors receiving full credit for all legitimate project related expenses, similar to credit received by the Corps for project related expenses.

NAFSMA supports non-Federal sponsors receiving credit for CERCLA activities necessary for project execution.

Section 211 of WRDA 96

NAFSMA supports policies and programs that allow local implementation of Federal projects where advantages and effectiveness can be demonstrated and agreements that allow for reimbursement of the project's Federal share, such as Section 211 of WRDA 96.

Corps Personnel and Permitting Issues

NAFSMA supports and encourages the Corps of Engineers to make personnel available to participate with members early and throughout the planning, design and permitting phases of new civil works projects to address all environmental issues and regulations in order to obtain the necessary permitting in a timely and uncontested manner.

NAFSMA urges the Committee to include language in WRDA 2000 which allows local agencies to augment the Corps regulatory staff. NAFSMA member agencies are reporting that it currently takes them 3–4 months to obtain a nationwide permit and 6–9 months to obtain an individual permit. We anticipate additional delays with the replacement permits put forward by the Corps to replace Nationwide Permit 26.

Operation and Maintenance Issues

NAFSMA members have spent considerable resources in developing and maintaining flood management projects. Flood management projects by their nature are designed to allow for a certain amount of debris and/or sediment before the effectiveness of the project becomes impaired. It is essential that maintenance activities be performed on flood management projects before the project nears an impairment situation. The original design and constructed conditions should become the benchmark conditions to which maintenance shall be performed. NAFSMA advocates normal operations and maintenance activities be allowed to be performed so that the flood mitigating aspects and multi-objective aspects of the project can be met and the community can realize the project benefits.

In recent years, NAFSMA members have been experiencing more and more difficulty in conducting routine maintenance activities, especially those related to maintaining the carrying capacity of flood management projects. Our member agencies have experienced great difficulty in obtaining the necessary 404 permits needed to clear out vegetation and remove sediment in flood control channels. This burden has added great delays and increased costs to the maintenance loads of local flood management agencies. It also increases the risk of flood damage for our constituents, posing a public safety issue.

This lack of ability to perform routine maintenance activities places our member agencies at odds with other Federal programs. The Federal Emergency Management Agency requires local governments to assure the maintenance of flood carrying capacity of flood control projects, such as enlarged channels, as a condition of revising Flood Insurance Rate Maps to reflect the effects of the projects. At the same time, the Corps of Engineers, under its 404 permit process, makes it more difficult and expensive for local governments to perform the required, and necessary, maintenance.

NAFSMA advocates that Congress require the Corps to have all environmental permitting and mitigation requirements be completed and issued for long-term operations and maintenance activities, when a new civil works project is being designed and implemented to avoid future issues that would restrict or prohibit the operations and maintenance activities due to new permitting requirements.

Section 404 Exemption Clarification

NAFSMA also urges Congress to clarify the existing exemption provided under Section 404(f) of the Clean Water Act for flood management facilities and activities. NAFSMA has testified before the Committee in the past during hearings focused on wetlands permitting on the difficulties faced by local flood control agencies in carrying our their responsibilities to protect lives and property from the adverse impacts of flooding. It is difficult to explain to local citizens that their local public works or flood management agency cannot keep a flood control channel in working order because it is unable to obtain the necessary Federal permits to carry out the work in a timely manner. Meanwhile, an adjacent flood management channel maintained by the Corps of Engineers can be cleared. Congress must clarify this situation so that state and local flood management agencies are able to protect local citizens and property.

This situation is especially difficult to understand since the Federal Government was a partner, and in most cases prepared the operation and maintenance manuals outlining the necessary work that flood management agencies are now unable to perform. NAFSMA urges the Subcommittee to investigate this issue further and although you do not normally review Clean Water Act related issues under WRDA, this particular permitting situation has created a significant public safety problem. Our members strongly support wetlands protection and have been responsible for some of the most environmentally sensitive and unique flood management projects, but the situation that has been created for state and local agencies by Federal wetlands permitting requirements is untenable. The Committee must help our state and local agencies meet their flood management responsibilities.

ADDITIONAL OPERATIONS AND MAINTENANCE ISSUES

NAFSMA urges that Congress authorize Federal funding for rehabilitation and repair of infrastructure constructed with Federal funds that has outlived its design life.

Cooperative Agreements with Non-Federal Sponsors

NAFSMA urges that language be included in WRDA 2000 that directs the Corps to enter into cooperative agreements with local or regional agencies having the capability to implement projects. The Federal Highway Administration and the Federal Emergency Management Agency have similar cooperating agreements with local agencies that work very well.

STATEMENT OF JOSEPH E. LEMA, VICE PRESIDENT, MANUFACTURERS AND SERVICES DIVISION, NATIONAL MINING ASSOCIATION

SUMMARY OF REQUEST FOR AUTHORIZATION OF LOWER OHIO RIVER PROJECTS

The National Mining Association (NMA), on behalf of NMA's member companies that produce coal, metallic ores, and nonmetallic minerals, and manufacture mining and minerals processing machinery and equipment urges early Congressional authorization for construction of navigation improvements at three lock and dam projects on the Lower Ohio River in the states of Indiana and Kentucky: John T. Myers, Newburgh, and Cannelton. Each of those projects require twin 1,200-foot by 110-foot lock chambers to accommodate, safely and efficiently, barge tows transporting coal, other minerals, and other bulk commodity traffic at current and projected traffic levels. When those three projects are completed, together with the Olmsted and McAlpine projects under construction, and the existing, modern Smithland project, the Lower Ohio River from Louisville, Kentucky to the mouth of the Ohio River at its junction with the Mississippi River at Cairo, Illinois, will have uniform twin 1,200-foot by 110-foot lock chambers at all of the Lower Ohio River lock and dam projects, enabling smooth flow of barge tows through that high traffic segment at the heart of the inland waterways system.

From 1986 to 1996, according to data furnished by the U.S. Army Corps of Engineers, the Ohio River experienced a 2 percent growth rate annually in total traffic, incorporating annual growth rates of 2 percent for coal traffic, 4 percent for aggregates, and 10 percent for other ores and minerals, among other commodity traffic. Coal traffic, in particular, is very high, and is expected to increase at an annual rate of two or more percent into the next two decades. In 1996, coal traffic was more than 56 percent of total freight tonnage on the Ohio River.

Uniform, twin 1,200-foot by 110-foot lock chambers are required at the John T. Myers, Newburgh, and Cannelton projects, like the chambers existing today at the

Smithland project, and under construction at the Olmsted and McAlpine projects for three overriding reasons:

1. Serious delays encountered by barge tows in passage through the locks and dams result in losses of $250 to $350 per hour.
2. When a single existing 1,200-foot by 110-foot lock chamber is closed for maintenance and repairs, often several days or weeks, barge tows must use a smaller 600-foot by 110-foot lock chamber, necessitating a breakup of the barge set with incremental movements of portions of the barge set through the smaller chamber resulting in delays and safety risks.
3. The Lower Ohio River, including its junctions with the Tennessee and the Mississippi Rivers, is characterized by requiring an exceptionally high number of lockages for barge tows regularly.

Construction of Navigation Improvements Is Warranted and Timely at Selected Lock and Dam Projects on the Lower Ohio River

The Ohio River's barge shipping channels and lock and dam projects that control commercial navigation by barge tows from the mouth of the Ohio River at its junction with the Mississippi River at Cairo, Illinois to its origination at its junction with the Allegheny and Monongahela Rivers at Pittsburgh, are strategically important assets in the freight transportation network of the United States. The River is utilized extensively for the distribution of bulk commodities, including coal and other minerals, in a corridor from Pennsylvania to Missouri. Through interconnection with the Mississippi River and the Tennessee River, it further enables barge tows on the Ohio River to handle bulk shipments originating or terminating in a corridor from Minnesota to the Gulf of Mexico and points in the Southeast accessible using the Tennessee River. The influence of the Ohio River for commercial navigation also extends to states located west of the Mississippi River, in particular coal-producing states from which railroads connect mines with river terminals for intermodal rail-barge transportation.

Following enactment of key legislation on policies with regard to cost-sharing of inland waterway construction and rehabilitation in the Water Resources Development Act of 1986, much has been accomplished toward upgrading inland waterways navigation, including several lock and dam improvement projects at sites on the Ohio River and segments of connecting rivers, i.e. the Monongahela, Kanawha, and Tennessee Rivers, to aid intermodal truck-barge and rail-barge traffic serving commerce in the Ohio River Basin. Particular attention should be given to improvement of navigation at selected lock and dam projects on the Lower Ohio River from Louisville to Cairo, Illinois where the Lower Ohio River junctions with the Mississippi River, a stretch of the Ohio River that includes its junction with the mouth of the Tennessee River at Paducah, Kentucky. This especially significant hub for interconnected river barge traffic includes portions of three commercially navigable waterways, namely:

- the Lower Ohio River from Louisville to Cairo, Illinois;
- the Upper Mississippi River from Cairo, Illinois to its junction with the Illinois River north of St. Louis; and
- the Tennessee River from its junction with the Ohio River at Paducah, Kentucky southerly into the Tennessee Valley.

That hub for river barge traffic is especially significant for several reasons:

1. River barge traffic is substantial, with much of the barge tows carrying coal consumed for power generation at utility plants located on the rivers and other minerals and aggregates required by the construction industry.
2. The Lower Ohio River, the Tennessee River, the Upper Mississippi River, and the Illinois River are interconnected for barge traffic.
3. Modern rail-to-barge unloading, storage, and barge loading terminals are in place for use in coal transfer operations for coal mined in the Illinois Basin and in the Powder River Basin and other coal-producing areas of the western states.
4. Eastern coal has ready access to power plants located on the Lower Ohio River, the Tennessee River, the Mississippi River, and the Illinois River, as well as to port terminals located on the Gulf Coast, in barge tows originating on the Kanawha, Monongahela, Big Sandy, and Upper Ohio Rivers serving coal-producing areas of the eastern states.
5. Barge lines operating on the Ohio, Mississippi, Illinois, and Tennessee Rivers through this hub for river barge traffic are well equipped with modern towboats and barges and available today for competitive, fuel-efficient transportation services.

A Systematic Approach Should be Followed in Upgrading Obsolete Navigation Structures and Lockage Systems on the Lower Ohio River

It must be recognized that lock and dam projects on the rivers serve many purposes: flood control, water supply, commercial navigation and recreational boating, along with maintaining adequate depths of shipping channels, i.e. 9 to 14 feet for shallow-draft river barge tows depending on location. Of course, a critical factor for commercial navigation by barge tows is the adequacy of lockage chambers to accommodate passage of barge tows in a time-sensitive manner, much like the efficiency of at-grade surface highways depends highly on the time allocated at signalized intersections for "platoons" or queues of vehicles. For river navigation, the dimensions of a lock chamber and the number of lock chambers at a lock and dam project are controlling factors with regard to the efficiency of barge traffic. On the Ohio River, the standard for lock chambers is 1,200 feet long by 110 feet wide dimensions required to accommodate a barge tow in a single pass through the site for a towboat pushing 15 jumbo barges lashed three across and five in line with the lock chamber and shipping channel. Lock and dam projects with smaller lock chambers and projects having only one chamber of the standard size that must be taken out of service at times for maintenance and repair operations, requiring use of a much smaller auxiliary lock chamber only 600 feet in length, cause tows with 15 barges to be broken into sections of barges so that the total set can be moved through the lock chamber in segments resulting in significant delays and safety risks that would not be encountered if the lock chamber had standard 1,200-foot x 110-foot dimensions. An examination of lock chambers on the Lower Ohio River and the Ohio River gateway to the Tennessee Valley where the demand for standard 15-barge tows is high indicates a systematic approach should be followed in upgrading obsolete navigation structures and lockage systems on the Lower Ohio River.

Eight lock and dam projects—seven on the Lower Ohio River from Louisville to Cairo, Illinois and one on the Tennessee River just upstream from its junction with the Ohio River at Paducah, Kentucky—are involved in this analysis. It is noteworthy that there are no lock and dam projects on the Upper Mississippi River above Cairo, Illinois where the Ohio and Mississippi Rivers join, northerly above St. Louis at a point where the Mississippi River junctions with the Illinois River.

The current construction authorized at the Olmsted and McAlpine projects on the Lower Ohio River and at the adjoining Kentucky project on the Tennessee River, like the completed Smithland project on the Ohio River, is indicative of the need for twin 1,200-foot by 110-foot lock chambers similarly at the John T. Myers, Newburgh and Cannelton projects just upstream on the Lower Ohio River, points where complementary navigation requirements are warranted to add a second 1,200-foot by 110-foot lock chamber compatible with modern barge tows operating through the zone. The Olmsted project itself replaces two obsolete projects at Lock and Dam 52 and Lock and Dam 53 on the Lower Ohio River.

Annual Traffic Characteristics—1996

Lock & Dam Projects Ohio & Tennessee Rivers	No. of Tows	Annual Tons (millions)	Average Time/Tow (minutes)		
			Delay	Process	Total[1]
Ohio River L/D 53 and L/D 52, both to be replaced by Olmsted L/D	9,901[2]	94.1	n.a	n.a	93.5[2]
Smithland	7,866	85.1	8.2	44.1	52.3
John T. Myers[3]	6,592	77.6	43.7	47.8	91.5
Newburgh	6,686	68.3	44.8	47.1	91.9
Cannelton	5,025	56.8	39.7	56.0	95.7
McAlpine	4,900	54.0	52.8	55.9	108.7
Tennessee River					
Kentucky L/D	3,401	33.5	347.4	118.8	466.2

[1]total time per tow = delay and time for processing through lock.

[2]In 1996 8,158 tows passed over wicket dam under flood conditions.

[3]Uniontown L/D was renamed John T. Myers L/D during 1997.

Source: Ohio River Navigation System: 1997 Statistical Supplement, U.S. Army Corps of Engineers, Huntington, District

Barge traffic demand on the Lower Ohio River from the vicinity of Louisville, Kentucky to Cairo, Illinois at the junction of the Ohio and Mississippi Rivers justifies having in place a uniform system of lock and dam projects each having twin 1,200-foot x 110-foot lock chambers, the standard size for modern Ohio River barge tows. Seven lock and dam projects are involved. The first project moving upstream

from the mouth of the Ohio River at Cairo, Illinois is the Olmsted Project which replaces the obsolete L/D 52 and 53 at a new site between the junctions of the Lower Ohio River with the Mississippi and the Tennessee Rivers. The Olmsted Project is now under construction and will have twin 1,200-foot x 110-foot lock chambers when completed.

Moving upstream, the next facility is the Smithland Project where twin 1,200-foot x 110-foot lock chambers are now in place. It is significant that lock and dam projects upstream from the Smithland Project, in 1996, required that barge tows, on the average, consume more than 90 minutes to transit the site, including 40 minutes or more in waiting for entry into a lock chamber and 45 to 55 minutes for clearing passage through the project. On the other hand, at the modern Smithland Project barge tows completed lockages in approximately 52 minutes, including only 8 minutes of delay.

THE NORTHEAST-MIDWEST COALITION

GREAT LAKES TASK FORCE

May 15, 2000

The Honorable George Voinovich, Chairman
Subcommittee on Transportation and Infrastructure
Committee on Environment and Public Works
United States Senate
410 Dirksen Senate Building
Washington, DC 20510

The Honorable Sherwood Boehlert, Chairman
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
United States House of Representatives
B376 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Chairman:

As members of the Great Lakes delegation, we are writing to express our support for inclusion of several Great Lakes specific provisions in the Water Resources Development Act of 1998. Text of these provisions is enclosed.

- **Great Lakes Soft Engineering of Shorelines**

Soft engineering is the use of ecological principles and practices to reduce soil erosion and achieve stabilization of shorelines while enhancing habitat, public access, asthetics, beneficial uses, and cost effectiveness. Soft engineering is achieved by using rocks, vegetation, and other materials to soften the land-water edge, thereby improving ecology without compromising the engineered integrity of the shoreline. It is recognized that hard engineering (concrete breakwalls and sheet metal pilings with no habitat value for fish and wildlife) is required along certain shorelines for navigation and safety, but soft engineering is applicable to many locations, including brownfield and waterfront projects. Soft engineering alone, or in some instances in combination with hard engineering, reduces soil erosion and restores and enhances adjacent wetland and aquatic habitat. Such projects are cost-effective ways of re-developing Great Lakes waterfronts and provide for a diversity of opportunities, experiences, and beneficial uses. The intent of this provision is to promote use of soft engineering in the Great Lakes and encourage the implementation of new and emerging soft engineering technologies.

- **Great Lakes Fishery and Ecosystem Restoration**

The Great Lakes ecosystem is home to a world-class fishery with an economic value estimated to exceed $4 billion per year. Since the early 1990's, ecosystem restoration has been one of three high priority project outputs of the Army Corps of Engineers. The intent of this provision is to enhance Corps' involvement in ecosystem restoration efforts of particular benefit to the Great Lakes fishery, to ensure that Corps' projects are not counterproductive to fishery restoration goals, and to provide a mechanism for prioritizing Corps' projects relating to Great Lakes fishery restoration in coordination with other fishery management agencies.

- **Great Lakes Remedial Action Planning Technical Assistance and Sediment Remediation Technology Demonstrations**

The Water Resources Development Act of 1990 authorized the Corps of Engineers to provide technical assistance to State and local governments in development and implementation of remedial action plans for Areas of Concern identified in the Great Lakes Water Quality Agreement of 1978. The Water Resources Development Act of 1996 authorized the Corps to conduct no fewer than three projects to

demonstrate promising technologies to remediate contaminated sediments in the Great Lakes basin. The structure of the WRDA 1996 provision as an amendment to the 1990 provision effectively linked the two programs under the same timetable and appropriation ceiling ($5 million annually for both programs and expiration in fiscal year 2000). Progress towards cleanup of contaminated sediments in Great Lakes Areas of Concern has been far slower than anticipated in the late 1980's. After a decade of planning, cleanup of many of these sites is only now progressing to the point at which these authorities will be most useful. The intent of this provision is to extend the programs through 2010, expand the authorization ceiling so that sufficient funds will be available for both technical assistance and technology demonstrations, and bring the program's cost-sharing requirements in line with other Corps' environmental programs.

- **Great Lakes Sediment Transport Models**

The Water Resources Development Act of 1996 authorized the Army Corps of Engineers to develop tributary sediment transport models for each major river system depositing sediment into the Great Lakes. Approximately 60 Great Lakes tributaries meet the requirements of the program, 25 of which have been identified as high priorities for sediment management planning. A total of only $1 million has been appropriated to date under this authority for the construction of the first 6 models. WRDA 1996 authorizes appropriations only through 2001. The intent of this provision is to extend the program sufficiently to provide for development of at least the 25 priority models.

- **Non-Traditional Partners in Environmental Dredging**

The Water Resources Development Act of 1999 included several provisions which allowed non-traditional partners to provide the non-Federal share for projects under Beneficial Uses and Remedial Action Planning Technical Assistance programs. The intent of this provision is to allow similar entities to provide the non-federal share for environmental dredging projects.

We urge the Committee to give full consideration to our request and thank you for your attention to these important provisions. If you have questions, please have your staff contact Rochelle Sturtevant at 224-1211.

Sincerely,

Senator Mike DeWine

Senator Carl Levin

Senator Herb Kohl

Senator Evan Bayh

Rep. Sherrod Brown

Rep. Steven C. LaTourette

May 15, Great Lakes WRDA 2000 - Page 3.

Rep. Phil English

Rep. Dale Kildee

Rep. Stephanie Tubbs Jones

Rep. Sander Levin

Rep. Marcy Kaptur

Rep. Jerry Kleczka

Rep. John Dingell

Rep. Louise Slaughter

Rep. Bart Stupak

Rep. James Walsh

Rep. John McHugh

Rep. John Conyers

Rep. Vern Ehlers

Rep. Ron Klink

May 15, Great Lakes WRDA 2000 - Page 4.

Rep. Fred Upton

Rep. John LaFalce

Rep. Jack Quinn

Rep. William Lipinski

AMENDMENT NO. ____ Calendar No. ____

Purpose: To direct the Secretary of the Army to develop a plan to support the management of the Great Lakes fisheries and to plan, design, and construct projects to restore the fishery, ecosystem, and beneficial uses of the Great Lakes.

IN THE SENATE OF THE UNITED STATES—106th Cong., 2d Sess.

(no.) _____

(title) _____

Referred to the Committee on _____
and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. LEVIN

Viz:

At the appropriate place, insert the following:

SEC. ___. GREAT LAKES FISHERY AND ECOSYSTEM RESTORATION.

(a) FINDINGS.—Congress finds that—

(1) the Great Lakes comprise a nationally and internationally significant fishery and ecosystem;

(2) the Great Lakes fishery and ecosystem should be developed and enhanced in a coordinated manner; and

(3) the Great Lakes fishery and ecosystem provides a diversity of opportunities, experiences, and beneficial uses.

(b) DEFINITIONS.—In this section:

(1) GREAT LAKE.—

(A) IN GENERAL.—The term "Great Lake" means Lake Superior, Lake Michigan, Lake Huron (including Lake St. Clair), Lake Erie, and Lake Ontario (including the St. Lawrence River to the 45th parallel of latitude).

(B) INCLUSIONS.—The term "Great Lake" includes any connecting channel, historically connected tributaries, and basin of a lake specified in subparagraph (A).

(2) GREAT LAKES COMMISSION.—The term "Great Lakes Commission" means The Great Lakes Commission established by the Great Lakes Basin Compact (Public Law 90–419; 82 Stat. 414).

(3) GREAT LAKES FISHERY COMMISSION.—The term "Great Lakes Fishery Commission" has the meaning given the term "Commission" in section 2 of the Great Lakes Fishery Act of 1956 (16 U.S.C. 931).

1 (4) GREAT LAKES STATE.—The term "Great
2 Lakes State" means each of the States of Illinois,
3 Indiana, Michigan, Minnesota, Ohio, Pennsylvania,
4 New York, and Wisconsin.
5 (5) SECRETARY.—The term "Secretary" means
6 the Secretary of the Army.
7 (c) GREAT LAKES FISHERY AND ECOSYSTEM RES-
8 TORATION.—
9 (1) SUPPORT PLAN.—
10 (A) IN GENERAL.—Not later than 1 year
11 after the date of enactment of this Act, the Sec-
12 retary shall develop a plan for activities of the
13 Corps of Engineers that support the manage-
14 ment of Great Lakes fisheries.
15 (B) USE OF EXISTING DOCUMENTS.—To
16 the maximum extent practicable, the plan shall
17 make use of and incorporate documents that re-
18 late to the Great Lakes and are in existence on
19 the date of enactment of this Act, such as
20 lakewide management plans and remedial ac-
21 tion plans.
22 (C) COOPERATION.—The Secretary shall
23 develop the plan in cooperation with—

1 (i) the signatories to the Joint Stra-
2 tegic Plan for Management of the Great
3 Lakes Fisheries; and
4 (ii) other affected interests.
5 (2) PROJECTS.—The Secretary shall plan, de-
6 sign, and construct projects to support the restora-
7 tion of the fishery, ecosystem, and beneficial uses of
8 the Great Lakes.
9 (3) EVALUATION PROGRAM.—
10 (A) IN GENERAL.—The Secretary shall de-
11 velop a program to evaluate the success of the
12 projects carried out under paragraph (2) in
13 meeting fishery and ecosystem restoration
14 goals.
15 (B) STUDIES.—Evaluations under sub-
16 paragraph (A) shall be conducted in consulta-
17 tion with the Great Lakes Fishery Commission
18 and appropriate Federal, State, and local agen-
19 cies.
20 (d) COOPERATIVE AGREEMENTS.—In carrying out
21 this section, the Secretary may enter into a cooperative
22 agreement with the Great Lakes Commission or any other
23 agency established to facilitate active State participation
24 in management of the Great Lakes.

1 (e) RELATIONSHIP TO OTHER GREAT LAKES ACTIVI-
2 TIES.—No activity under this section shall affect the date
3 of completion of any other activity relating to the Great
4 Lakes that is authorized under other law.
5 (f) COST SHARING.—
6 (1) DEVELOPMENT OF PLAN.—The Federal
7 share of the cost of development of the plan under
8 subsection (c)(1) shall be 100 percent.
9 (2) PROJECT PLANNING, DESIGN, CONSTRUC-
10 TION, AND EVALUATION.—
11 (A) IN GENERAL.—Except as provided in
12 subparagraph (B), the Federal share of the cost
13 of planning, design, construction, and evalua-
14 tion of a project under paragraph (2) or (3) of
15 subsection (c) shall be 75 percent.
16 (B) FEDERAL LAND AND PROJECTS.—In
17 the case of a project that is carried out on Fed-
18 eral land or that relates to another Federal
19 project, the Federal share shall be 100 percent.
20 (3) FORM OF NON-FEDERAL SHARE.—The non-
21 Federal share may be provided in cash or in kind.
22 (4) OPERATION AND MAINTENANCE.—The op-
23 eration, maintenance, repair, rehabilitation, and re-
24 placement of projects carried out under this section
25 shall be a non-Federal responsibility.

(5) NON-FEDERAL INTERESTS.—Notwithstanding section 221 of the Flood Control Act of 1970 (42 U.S.C. 1962d–5b), for any project carried out under this section, a non-Federal interest may include a private interest and a nonprofit entity.

(g) AUTHORIZATION OF APPROPRIATIONS.—

(1) DEVELOPMENT OF PLAN.—There is authorized to be appropriated for development of the plan under subsection (c)(1) $300,000 for fiscal year 2001.

(2) OTHER ACTIVITIES.—There is authorized to be appropriated to carry out paragraphs (2) and (3) of subsection (c) $10,000,000 for each of fiscal years 2002 through 2006.

O:\TOM\TOM00.266 S.L.C.

AMENDMENT NO. ____ Calendar No. ____

Purpose: To encourage the implementation of new and emerging soft engineering technologies and to evaluate the effectiveness of the technologies by implementing the technologies on Great Lakes shores.

IN THE SENATE OF THE UNITED STATES—106th Cong., 2d Sess.

(no.) _____

(title) _____

Referred to the Committee on _____
and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. LEVIN

Viz:

1 At the appropriate place, insert the following:

2 **SEC. ___. SOFT ENGINEERING OF GREAT LAKES SHORES.**

3 (a) FINDINGS.—Congress finds that—

4 (1) with respect to shores—

5 (A) soft engineering technologies—

6 (i) consist of the use of ecological

7 principles and practices to reduce soil ero-

1 sion and achieve stabilization and safety of
2 shores; and
3 (ii) enhance adjacent wetland and
4 aquatic habitat, improve public access, aes-
5 thetics, and beneficial uses, and reduce
6 costs; and
7 (B) hard engineering technologies—
8 (i) consist of concrete breakwalls and
9 sheet metal pilings; and
10 (ii) do not typically provide or en-
11 hance habitat for fish and wildlife;
12 (2) while hard engineering is required along
13 certain shores for navigation and safety, soft engi-
14 neering is applicable to many locations;
15 (3) soft engineering projects are cost-effective
16 ways of redeveloping Great Lakes waterfronts and
17 result in a diversity of opportunities, experiences,
18 and beneficial uses; and
19 (4) to ensure compatible economic development,
20 environmental restoration, and aesthetic improve-
21 ment of Great Lakes shores, the Corps of Engineers
22 should promote the use of soft engineering principles
23 and technologies in projects in the Great Lakes.
24 (b) PURPOSE.—The purpose of this section is to en-
25 courage the implementation of new and emerging soft en-

1 gineering technologies and to evaluate the effectiveness of
2 such technologies.
3 (c) DEFINITIONS.—In this section:
4 (1) GREAT LAKE.—
5 (A) IN GENERAL.—The term "Great
6 Lake" means Lake Superior, Lake Michigan,
7 Lake Huron (including Lake St. Clair), Lake
8 Erie, and Lake Ontario (including the St. Law-
9 rence River to the 45th parallel of latitude).
10 (B) INCLUSIONS.—The term "Great Lake"
11 includes any connecting channel and basin of a
12 lake specified in subparagraph (A).
13 (2) GREAT LAKES COMMISSION.—The term
14 "Great Lakes Commission" means The Great Lakes
15 Commission established by the Great Lakes Basin
16 Compact (Public Law 90–419; 82 Stat. 414).
17 (3) GREAT LAKES FISHERY COMMISSION.—The
18 term "Great Lakes Fishery Commission" has the
19 meaning given the term "Commission" in section 2
20 of the Great Lakes Fishery Act of 1956 (16 U.S.C.
21 931).
22 (4) SECRETARY.—The term "Secretary" means
23 the Secretary of the Army.
24 (5) SOFT ENGINEERING.—

1 (A) IN GENERAL.—The term "soft engi-
2 neering" means the application of ecological
3 principles and practices to traditional engineer-
4 ing problems.
5 (B) INCLUSION.—The term "soft engineer-
6 ing" includes the use of rocks, vegetation, and
7 other materials along a shore to soften the
8 boundary between land and water, thereby im-
9 proving ecology without compromising the engi-
10 neered integrity of the shore.
11 (d) DEVELOPMENT AND IMPLEMENTATION OF SOFT
12 ENGINEERING TECHNOLOGIES.—
13 (1) IMPLEMENTATION PLAN.—
14 (A) IN GENERAL.—Not later than 1 year
15 after the date of enactment of this Act, the Sec-
16 retary shall develop a plan to enhance imple-
17 mentation of soft engineering technologies on
18 Great Lakes shores.
19 (B) REQUIRED ELEMENTS.—The plan
20 shall include—
21 (i) a review of permitting procedures
22 to expedite implementation of soft engi-
23 neering projects;
24 (ii) recommendations for soft engi-
25 neering projects encompassing a variety of

1 new technologies and shoreline concerns;
2 and
3 (iii) recommendations for evaluating
4 such projects.
5 (C) CONSULTATION.—In developing the
6 plan, the Secretary shall consult with Great
7 Lakes institutions and governmental organiza-
8 tions such as the Great Lakes Commission, the
9 Great Lakes Fishery Commission, municipali-
10 ties, States, and tribes.
11 (2) PROJECTS.—The Secretary shall plan, de-
12 sign, and construct projects to implement soft engi-
13 neering technologies on Great Lakes shores.
14 (3) EVALUATION PROGRAM.—The Secretary
15 shall develop a program to evaluate the ecological
16 and economic success of the projects carried out
17 under paragraph (2).
18 (e) RELATIONSHIP TO OTHER GREAT LAKES ACTIVI-
19 TIES.—No activity under this section shall affect the date
20 of completion of any other activity relating to the Great
21 Lakes that is authorized under other law.
22 (f) COST SHARING.—
23 (1) DEVELOPMENT OF PLAN.—The Federal
24 share of the cost of development of the plan under
25 subsection (d)(1) shall be 100 percent.

1 (2) PROJECT PLANNING, DESIGN, CONSTRUC-
2 TION, AND EVALUATION.—
3 (A) IN GENERAL.—Except as provided in
4 subparagraph (B), the Federal share of the cost
5 of planning, design, construction, and evalua-
6 tion of a project under paragraph (2) or (3) of
7 subsection (d) shall be 75 percent.
8 (B) FEDERAL LAND AND PROJECTS.—In
9 the case of a project that is carried out on Fed-
10 eral land or that relates to another Federal
11 project, the Federal share shall be 100 percent.
12 (3) FORM OF NON-FEDERAL SHARE.—The non-
13 Federal share may be provided in cash or in kind.
14 (4) OPERATION AND MAINTENANCE.—The op-
15 eration, maintenance, repair, rehabilitation, and re-
16 placement of projects carried out under this section
17 shall be a non-Federal responsibility.
18 (5) NON-FEDERAL INTERESTS.—Notwith-
19 standing section 221 of the Flood Control Act of
20 1970 (42 U.S.C. 1962d–5b), for any project carried
21 out under this section, a non-Federal interest may
22 include a private interest and a nonprofit entity.
23 (g) AUTHORIZATION OF APPROPRIATIONS.—
24 (1) DEVELOPMENT OF PLAN.—There is author-
25 ized to be appropriated for development of the plan

1 under subsection (d)(1) $200,000 for fiscal year
2 2001.
3 (2) OTHER ACTIVITIES.—There is authorized to
4 be appropriated to carry out paragraphs (2) and (3)
5 of subsection (d) $10,000,000 for each of fiscal
6 years 2002 through 2006.

O:\JOH\JOH00.185 S.L.C.

AMENDMENT NO. ____ Calendar No. ____

Purpose: To change the funding provisions for assistance for the development and implementation of Great Lakes remedial action plans and sediment remediation projects.

IN THE SENATE OF THE UNITED STATES—106th Cong., 2d Sess.

(no.) _____

(title) _____

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. LEVIN

Viz:

At the appropriate place, insert the following:

SEC. ___. GREAT LAKES REMEDIAL ACTION PLANS AND SEDIMENT REMEDIATION.

Section 401 of the Water Resources Development Act of 1990 (33 U.S.C. 1268 note; 104 Stat. 4644; 110 Stat. 3763; 113 Stat. 338) is amended—

(1) in subsection (a)(2)(A), by striking "50 percent" and inserting "35 percent";

(2) in subsection (b)—

(A) by striking paragraph (3);

(B) in the first sentence of paragraph (4), by striking "50 percent" and inserting "35 percent"; and

(C) by redesignating paragraph (4) as paragraph (3); and

(3) in subsection (c), by striking "$5,000,000 for each of fiscal years 1998 through 2000." and inserting "$10,000,000 for each of fiscal years 2001 through 2010.".

O:\JOH\JOH00.184 S.L.C.

AMENDMENT NO. ____ Calendar No. ____

Purpose: To extend the funding authorization for the Great Lakes tributary sediment transport model.

IN THE SENATE OF THE UNITED STATES—106th Cong., 2d Sess.

(no.) _____

(title) _____

Referred to the Committee on _____
and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. LEVIN

Viz:

1 At the appropriate place, insert the following:

2 **SEC. ___. GREAT LAKES TRIBUTARY MODEL.**

3 Section 516(g) of the Water Resources Development

4 Act of 1996 (33 U.S.C. 2326b(g)) is amended—

5 (1) by striking "There is authorized" and in-

6 serting the following:

7 "(1) IN GENERAL.—There is authorized"; and

8 (2) by adding at the end the following:

9 "(2) GREAT LAKES TRIBUTARY MODEL.—In ad-

10 dition to amounts made available under paragraph

1 (1), there is authorized to be appropriated to carry
2 out subsection (c) $5,000,000 for each of fiscal
3 years 2001 through 2008.".

AMENDMENT NO. ____ Calendar No. ____

Purpose: To provide that nonprofit entities may be non-Federal sponsors with respect to projects to remove and remediate contaminated sediments from the navigable waters of the United States.

IN THE SENATE OF THE UNITED STATES—106th Cong., 2d Sess.

(no.) _____

(title) _____

Referred to the Committee on _____
and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. LEVIN

Viz:

1 At the appropriate place, insert the following:

2 **SEC. ___. ENVIRONMENTAL DREDGING.**

3 Section 312 of the Water Resources Development Act
4 of 1990 (33 U.S.C. 1272) is amended by adding at the
5 end the following:

6 "(g) NONPROFIT ENTITIES.—Notwithstanding sec-
7 tion 221 of the Flood Control Act of 1970 (42 U.S.C.
8 1962d–5b), for any project carried out under this section,

1 a non-Federal sponsor may include a nonprofit entity,
2 with the consent of the affected local government.".