

WATER RESOURCES DEVELOPMENT ACT OF 1998

HEARING
BEFORE THE
SUBCOMMITTEE ON
TRANSPORTATION AND INFRASTRUCTURE
OF THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
ONE HUNDRED FIFTH CONGRESS
SECOND SESSION

JUNE 23, 1998

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WATER RESOURCES DEVELOPMENT ACT OF 1998

TUESDAY, JUNE 23, 1998

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

The subcommittee met, pursuant to notice, at 9:35 a.m. in room 406, Senate Dirksen Building, Hon. John W. Warner (chairman of the subcommittee) presiding.

Present: Senators Warner, Kempthorne, Inhofe, Bond, Baucus, Reid, Graham, Boxer, and Wyden.

Also present: Senator Lautenberg.

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

Senator WARNER. The hearing will come to order.

The Senate is anticipating votes, perhaps in as little time as 45 minutes to an hour. So the chairman intends to forego the opening statement. If other Senators can see fit to do that, I think we can move right along.

Senator WYDEN. Mr. Chairman, may we put a statement into the record?

Senator WARNER. Of course. Without objection, all statements can be inserted into the record.

The purpose of the hearing is to examine the Administration's proposal to reauthorize the civil works activities of the Corps of Engineers. It's been the committee's practice, since the landmark Water Resources Development Act of 1986, to enact the water resources legislation on a consistent 2-year cycle, and today this committee renews its commitment to make every effort to do just that.

We're fortunate to have a brand new Secretary of the Army, one who comes from the Senate family, who is highly respected by members and staff alike throughout the Senate, the Honorable Joseph Westphal, Assistant Secretary for Civil Works, U.S. Department of the Army. He's accompanied by Major General Russell Fuhrman, Director of Civil Works, and Mr. Michael Davis, Deputy Assistant Secretary of Civil Works for Policy and Legislation.

I first wish to thank you, Mr. Secretary, for working with my staff as it relates to the Metropolitan Washington, DC. water supply. It is critical that we modernize that system, as you well understand. Parts of it were built in the 1850's, and I think your technical people would be the first to tell you, the time has come to face up to that responsibility. You were instrumental in the last 48

hours in getting that matter worked out as best we can in the Administration and Congress, in the few hours that remained before hopefully confirming the Secretary of the Army today. I thank you.

Senator BOXER. Mr. Chairman, may I ask you one brief question?

Senator WARNER. Yes.

Senator BOXER. I've been contacted by a number of environmental groups that are not going to be testifying today, but would like to submit some testimony for the record.

Senator WARNER. Senator, without objection.

Senator BOXER. Thank you.

Senator WARNER. Of course, they'll be reasonable in length, but I'm glad that you brought that up, and we will do that. We'll provide the opportunity.

Senator BOXER. They're interested in the Challenge 21 program, and they wanted to have their comments included.

Senator WARNER. Understood.

[The prepared statements of Senators Warner, Chafee, Inhofe, Bond, Baucus, Lautenberg, Reid, Graham, Boxer, and Wyden follow:]

PREPARED STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE
COMMONWEALTH OF VIRGINIA

Good morning. I would like to welcome Secretary Westphal to the committee this morning as the new Assistant Secretary of the Army for Civil Works. We are pleased that you have been confirmed for this challenging position and look forward to working with you. The committee also welcomes our other witnesses—many of whom have traveled far to join us this morning.

Today, the purpose of the hearing is to examine the Administration's proposal to reauthorize the civil works activities for the Corps of Engineers.

It has been the committee's practice since the landmark Water Resources bill of 1986 to enact a Water Resources Development Act on a consistent 2-year cycle. Today, I renew our commitment to this process.

A predictable reauthorization process ensures that our Nation's water resource infrastructure is constructed and maintained in a timely and efficient manner. This process allows the Army Corps of Engineers to continue to "cost share" project costs with local sponsors.

In return, citizens have received significant protection from flooding and coastal storms. We have maintained our competitive edge in a "one-world" economic market through the construction and maintenance at our Nation's ports and waterways.

While some may question the economic benefits to the taxpayer from investments in these local activities, there is ample evidence to confirm that these projects are in the national interest.

In 1997 alone, Corps flood control projects prevented approximately \$45.2 billion in damages. The Corps continues to support our Nation's commercial navigation through deepening and maintaining our Nation's waterways. The value of the commerce on these waterways totaled over \$600 billion in 1996, generating 15.9 million jobs.

The national interest in water resource development is clear. We are concerned, however, about the Administration's declining budget requests for the Corps civil works activities. There is a growing disparity between the number of projects which have been fully analyzed by the Corps, received Chiefs Reports and authorized by this committee compared to the projects funded through the annual Appropriations process.

For example, the Water Resources Development Act of 1996, authorized approximately 250 projects for construction. However, less than 50 percent—123 projects—have actually received any funding to begin construction.

In addition, the President's fiscal year 1999 construction budget request of \$784 billion represents a significant reduction from the current fiscal year construction funding of \$1.47 billion. Certainly, this budget request cannot support the work being recommended by the Chief of Engineers and again the Congress will need to supplement the Administration's request. The Senate Energy and Water Appropria-

tions bill, passed last week, contains \$1.2 billion for construction activities for next fiscal year.

I remain committed to the cost-sharing principles established in the WRDA 1986 which call on local sponsors to be full partners in the development of projects. It is my intent to proceed with project authorizations that adhere to these principles. They have been successful in leveraging non-Federal funds and have ensured that only those projects with the strongest local support move forward.

The committee will hear from several witnesses today about the Administration's proposal concerning shore protection projects. I will carefully study this proposal and hope that—should the committee concur with this approach—that the Administration will begin to budget for these vitally needed projects.

It is disconcerting that the Administration has not implemented the provisions of the 1996 Water Resources bill which directed the Secretary to recommend shore protection authorizations to Congress and to renew budgeting for construction of these authorized projects. While I welcome the opportunity to resolve this longstanding issue with the Administration regarding Federal support of on-going and new shore protection projects, I am concerned that the Administration is not firmly committed to maintaining a long term shore protection program.

Secretary Westphal, I hope that we can begin to make progress on this serious issue.

In closing, I would like to reiterate my support for passage of a Water Resources Development Act of 1998. This vital legislation would ensure timely and efficient development and maintenance of our Nation's water resource infrastructure. I look forward to working with my colleagues on the committee to proceed with the development of legislation to mark-up in the very near future.

PREPARED STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE
STATE OF RHODE ISLAND

Thank you, Senator Warner, for calling today's hearing. We have a very short amount of time this year, maybe 9 or 10 weeks, in which to complete action on the Water Resources Development Act (WRDA) of 1998. I am confident, however, that we will be able to get our work done.

Very briefly, Mr. Chairman, I'd like to say that I am pleased to see our new Assistant Secretary, Dr. Westphal, testifying before the committee this morning. I want to congratulate him on his recent confirmation and look forward to working with him on a variety of important matters.

Today, I am eager to learn more from Dr. Westphal about the Administration's 1998 WRDA proposal. I will be interested to hear what the top priorities are, what the overall WRDA dollar level should be, and finally, what advice they have to offer on some of the more thorny issues.

In particular, I am wondering if the Administration believes that we must fix the Harbor Maintenance Trust Fund this year (as part of WRDA). If so, I am eager to review any proposals they might have to restore a harbor maintenance user fee that will meet the tests laid out by the Supreme Court this past March.

Again, thank you, Senator Warner, for chairing this hearing. I feel strongly about getting the WRDA bill done this year. We have a responsibility to the non-Federal project sponsors who have been doing their part by sharing feasibility study costs and construction costs, likewise.

Finally, I want to thank Grover Fugate for coming down this morning from Rhode Island. We have just come out of a very rough storm season in which the South Coast of my State was really battered by nor'easters. Grover and the Coastal Resources Management Council did a great job responding to—and trying to diminish—the terrible damage caused by the storm surges. I am delighted he could make the trip today to discuss shoreline issues.

I look forward to his testimony and indeed that of our other expert witnesses.

PREPARED STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE
STATE OF OKLAHOMA

Mr. Chairman, Thank you for holding this important hearing today. I would also like to thank the ranking member, Senator Baucus and the chairman of the Subcommittee on Transportation and Infrastructure, Senator Warner, for their leadership on this issue.

I want to start by stating that I have always had a good working relationship with the Corps of Engineers. As a member of the House Committee on Public Works and Transportation Committee (now the Committee on Transportation and Infra-

structure) and now as a member of this committee. I have had many occasions to work with the Corps and have been generally pleased with their actions.

The Water Resources Development Act of 1998 (WRDA) gives us an important opportunity to assist our communities with flood control and river and harbor protection projects. I have always supported the prudent expenditure of funds on infrastructure projects and will continue to do so in this bill.

There are, however, some areas of this language that cause me some serious concern. After reading the bill, I noticed that a couple sections deal with wetlands. Section 17 of this bill would authorize a new tax on commercial permit applicants to help the Corps cover the cost of preparing the Environmental Impact Statement required by the National Environmental Policy Act (NEPA) and the cost of delineation of wetlands for major development affecting wetlands. This section changes current policy by eliminating the fee charged to private individuals and shifts the fee completely to commercial applications. I question why anyone should pay a tax for the pleasure of going through the wetlands permitting process.

Section 4, which the Corps also calls "Challenge 21", will authorize a new Corps program that will seek non-structural approaches to preventing or reducing flood damages, which will include wetland restoration. To construct these projects, Congress will authorize \$325 million over 6 years and establish a \$75 million per-project cap. My concern with section is that Congress waives its ability to approve of the individual projects. We set two reporting requirements; that the Secretary must notify the appropriate committees and he must wait for 21 calendar days before proceeding with a project. In my opinion, we are giving up too much of our oversight authority.

My concern all along has been that we have wetlands policy spread out over too many jurisdictions covering too many functions. These examples highlight a fractioned wetland policy in which we address certain problems in one area with one approach and other problems in other areas with a different approach. I would like to see all wetland initiatives in a comprehensive bill so that we are very clear in our policy regarding wetlands. As most of you know, I am planning to introduce a comprehensive wetlands bill this summer. It is my sincere desire that the Corps will work with me on that to create a meaningful piece of legislation that all members on this committee can support.

On a final note, it is my understanding that the Corps will be providing my staff with draft data regarding a request that I made a year ago. I requested that the Corps calculate the average time from the initial application for a wetlands permit until the Corps deems the application packet complete. I will be anxiously awaiting the results of that study.

Thank you for the time Mr. Chairman. I look forward to working with you to draft a meaningful WRDA bill.

PREPARED STATEMENT OF HON. CHRISTOPHER S. BOND, U.S. SENATOR FROM THE
STATE OF MISSOURI

Thank you Mr. Chairman, I am grateful for your holding this hearing and look forward to working with you to enact a water resources bill.

Welcome Dr. Westphal. For years we have been receiving loyal and dutiful public servants from the Corps who are sent up to defend ridiculous budgets written by ideologues at the OMB that we reject on a bipartisan basis year after year. The reason we reject them is that we represent the millions of people who depend on your mission.

At no time since I have been in the Senate has the Army Corps of Engineers been in greater need for an advocate to fight off those whose proposals undermine the very mission that has saved countless lives, prevented billions of dollars of flood damage, provided competitive international trade advantages for U.S. products and provided economic development opportunities in areas where unemployment and poverty is historically prevalent. Millions of U.S. citizens are depending upon you. I have heard many reports of your strength and knowledge and look forward to working with you.

Dr. Westphal, I won't, but I am tempted to ask you this: if Congress adopted anything resembling the President's budget for water projects, would you recommend that he veto it? I won't ask you this because you shouldn't have to choose between loyalty and responsible common sense. I think the measure of your job performance will be your independence from OMB. They know the cost of everything, maybe you can explain to them the value of something.

We have a project in Kansas City which protects industries employing 12,000 workers and the Administration sent up a budget which, if adopted, would send the contractors home next May. It is not just dangerous, it is inefficient and more costly.

They didn't just decimate structural flood control but environmental programs as well and I am hearing from hundreds of constituents about park closures at Corps-operated lakes. Constituents report that rangers are blaming closures on congressional budget cuts, which, as you know, is not true. I am sending you a letter on this subject today and I hope you can respond. We have social-security-aged locks and dams on the upper Mississippi River which must be modernized. We can all discuss how best to do it but we must do it without delay.

I have a proposal worked out with American Rivers to improve the health of Missouri waterways but under a \$3.2 billion budget as proposed by the Administration, it couldn't be funded. We can't operate that way. If the Administration wants Congress to fund "Challenge 21", they shouldn't send up a \$3.2 billion budget next year.

There are some in this body who oppose congressional earmarks because they argue budgeting should be left to "professionals" who exercise care and wisdom in the absence of politics to formulate responsibly budget priorities.

As long as this budget is written by OMB, with the Corps gagged and standing on the sidelines, that argument will remain, well, laughable.

What OMB calls "savings" would cost our nation and cost the taxpayers immensely through cost-overruns, delays, contract interruptions not to mention increased flooding, property damage, transportation bottlenecks and environmental neglect.

The Senate, led by Senator Reid and Domenici has gone a long hard way toward trying to resuscitate this cadaver but we have more to do and I look forward to working with you as we move ahead and I Congratulate you on your confirmation. Many are depending upon your leadership.

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

Thank you, Mr. Chairman, and I would like to welcome Dr. Westphal to what I believe is his first appearance before the Congress in his recently confirmed position as Assistant Secretary of the Army for Civil Works and his first appearance before this committee. Congratulations and I look forward to working with you.

Mr. Chairman, today's hearing on S. 2131, the Administration's proposal for the Water Resources Development Act of 1998 (WRDA), gives us the opportunity to listen to both the Administration and our other witnesses discuss the policies and projects for the Corps of Engineers. This year's WRDA bill proposes a number of new initiatives, including the establishment of the Challenge 21 program, a Water Resources Foundation and an aquatic restoration program for the Missouri River.

There are also proposals for changing the cost share for shoreline protection and allocating additional recreational fees collected at Corps facilities.

I applaud the Administration for recognizing recreation in the Corps' mission and the need to keep our recreational facilities in shape. With the recreational facilities managed by the Corps being second only to our national forests as this country's most visited Federal lands, and generating \$10 for every \$1 of investment, the Corps' contribution to recreation is extremely important. In my State of Montana, in eastern Montana, there is a Corps facility called Fort Peck. For the residents of eastern Montana, Fort Peck is the only recreational facility for hundreds of miles. It is estimated that 86 percent of the visits to Fort Peck are Montana residents. That can partially be attributed to the quality of the facility, a beautiful lake with world-class fishing combined with an opportunity to view the largest earthen dam in this country. But is also attributable to the vastness of my State and the limited recreational opportunities in eastern Montana. I encourage you, Dr. Westphal, to come visit one of the Corps' crowning achievements.

I also look forward to hearing the views of the Administration and the representative from the American Association of Port Authorities on the future of the Harbor Maintenance Trust Fund. Now that the Supreme Court has ruled that the ad-valorem fee on exporters is unconstitutional, we need to put our heads together to come up with a solution to ensure the continued viability of our nation's ports.

I look forward to hearing from all of you this morning.

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

Good morning Mr. Chairman. I want to speak briefly on two issues important to the economic health of my State. The first is the continued viability of our ports.

This committee recently completed work on the most comprehensive infrastructure enhancement program in years—to fund the investments to maintain our nation's highways and mass transit. This is what we would call the "above ground" infrastructure. Now we must quickly turn our attention to the infrastructure "under water," which is an equally vital component of the Nation's transportation network.

American ports are facing tremendous pressures in the competition for international trade. I can think of no better example of how this competition is being played out than in the New York-New Jersey Harbor, our Nation's busiest port, which faces threats from the deeper Canadian ports.

The Kill van Kull and Newark Bay channels which serve New Jersey and Staten Island, Mr. Chairman, are not naturally deep. They range in depth from 35 to 45 feet, even after dredging projects. I recognize the urgent need to move ahead quickly with plans to deepen these channels to accommodate the larger generation of ships.

But we need help from the Administration to solve this problem. We need a long-term solution to the problem of underfunding for our shipping channels.

As a member of the Budget and Appropriations Committee, I can attest to the great difficulty we faced in funding some of these projects without proper support from the Administration in its budget submission. I plan to pay close attention to the Administration's response to the Supreme Court's decision on the Harbor Maintenance Tax and to overall funding for port projects.

American ports stand to lose billions of dollars in revenue and jobs to foreign competition if we fail to maintain the infrastructure they need to move goods throughout the United States. The ports and shipping companies say that they need 50-foot channels to accommodate a new breed of cargo ships that are expected to dominate the industry in the future.

As an example of this problem, next month, a so-called "K Class" ship called the *Regina Maersk* will be sailing into New York Harbor with only half of the cargo it is capable of holding.

One of the issues I hope to address in this year's WRDA bill is what the Federal share of channel deepening projects greater than 45 feet should be.

Currently, the Federal share for channel deepening projects in excess of 45 feet is 50 percent. This policy was established 12 years ago in WRDA 1986, when Congress determined that the shipping industry standard for container ships and other vessels was 45 feet. Now that the industry standard is greater, and deeper drafts—up to 50 feet—are now required, I believe that it is time to revisit this policy.

Mr. Chairman, I look forward to working with you to appropriately adjust this cost-sharing formula.

The second issue of concern to me is the Federal role in protecting our coastal areas from the devastating effects of storms and erosion. I am pleased to welcome Ken Pringle from the Borough of Belmar, New Jersey, who will speak first-hand about this vital program.

The Federal shore protection program has worked extremely well in my State. As demonstrated by the recent series of winter storms along the coast, investments in shore protection projects have prevented millions of dollars in Federal disaster assistance and have protected lives and property.

I look forward to working with other coastal Senators on the committee to maintaining the Federal role in shore protection. The concept of shore protection is no different than flood control—it focuses on prevention to avoid huge disaster relief bills in the future.

Two years ago we enacted the Shore Protection Act, which is contained in Section 227 of WRDA 1996. This provision stated that the Federal Government has a role in shore protection, including the placement of sand on beaches to guard against storms.

I hope that members of the committee will remember the work that went into crafting this provision and to think carefully before making any changes which would undermine the Federal commitment to shore protection. Thank you.

PREPARED STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE
STATE OF NEVADA

I want to first express my appreciation to the Assistant Secretary of the Army Joseph Westphal, Deputy Assistant Secretary Michael Davis and General Russell Fuhrman for their testimony today, as well as the second panel of many fine rep-

representatives of cities and counties. Their contribution of experience, expertise and judgment is vital to the business of this subcommittee.

The work of the Army Corps of Engineers is of vital interest to sound development of the Nation's water resources, flood damage reduction and the regulation of wetlands. Those of us from western States understand that water management is essential for sustainable growth and development. Proactive monitoring and control of water resources is crucial to flood hazards mitigation which provides security and peace of mind for residents throughout the State. In Nevada, we currently have projects in work to provide for flood control in Las Vegas, water quality improvement at Lake Tahoe, restoration of the Truckee River and flood warning enhancement at Reno, among others. I have no doubt that if we can maintain the Corps' program, we will succeed in providing for the water demands of an increasing population, while balancing the social needs with our stewardship obligation to the environment.

The U.S. Army Corps of Engineers, with a total Fiscal Year 1999 level of \$3.394 billion budget, has served the Nation well in the development of water projects in flood control, water quality, environmental restoration and other public infrastructure. The approach the Administration took with the Corps' Fiscal Year 1999 budget is deeply troubling. Almost \$1.5 billion was cut from the water projects from around the Nation. If the future of the Corps' programs are to be determined by the Office of Management and Budget without regard for the Corps' projects, much less congressional direction, then the many needed projects throughout our States, basins, and communities will be irreparably undermined. I hope that we can work with the Corps to get this biennial Water Resources Development Act passed and that future budget proposals from the Administration will be supportive of the legislation that is produced.

PREPARED STATEMENT OF HON. BOB GRAHAM, U.S. SENATOR FROM THE
STATE OF FLORIDA

Mr. Chairman, members of the committee, and guests. I would like to take this opportunity to highlight the critical importance of the Water Resources Development Act of 1998 for the State of Florida.

As you know, water issues in Florida cover the gamut, including everything from coastal protection to inland water quality management, from statewide drought to statewide flooding. Our history dealing with water resources has caused some of our own problems that we seek to correct today.

In the Water Resources Development Act of 1998, there are many, many critical items for the State of Florida. This morning, I would like to highlight three of these items including shore protection policy, alternative water source development, and the Everglades and South Florida Ecosystem Restoration.

In the area of shore protection: The Administration's policy the last several years has been to discourage Federal involvement in new shore protection projects. Section 227 of the Water Resources Development Act of 1996 specifically authorized Federal involvement in the protection, restoration and enhancement of sandy beaches, including beach restoration and periodic beach renourishment. Regardless of congressional action in this critical area, the Administration has continued to consider shore protection projects a low priority and has declined to budget for new projects.

I am proposing legislation for inclusion in WRDA 98 that will modify the current shore protection paradigm by increasing the State's role while still providing for a Federal role in shore protection. I am proposing that criteria be established for the concept of an eligible State. An eligible State would be one which has been accepted by the Secretary of the Army as meeting two statutory requirements.

The first requirement is organizational. A State must establish regional shore protection entities which conform to the natural shoreline of the State. Normally this would mean between major shoreline cuts such as harbors. For instance, in South Florida, a natural region might be that between the Port Everglades and the Port of Miami. These regional entities would have the responsibility for establishing priorities among coastal renourishment projects within their region, and to be the local sponsor for those projects which were recommended. The State must also establish a State entity to oversee the regional entities for the specific purpose of establishing statewide priorities among those projects that are recommended by the regional agencies. The States will be allowed considerable latitude as to how to structure both the regional and State organizations, the method of selecting membership, the relationship with other State agencies and the specific geography of the regional entities.

The second requirement is financial. To be eligible for Federal assistance, each State would have to submit a financing plan for each proposed shore protection project. The financing plan will be a part of the project cooperation agreement and must assure that the non-Federal share for initial construction and any future renourishments be securely financed by the State. The non-Federal share of the initial and future project costs will be computed in accordance with existing law. However, the Secretary of the Army will be required to give priority to projects for which a State increases the non-Federal contribution beyond that required by law. The priority of the project for funding will be determined by the size of the increase (by percentage) of the non-Federal share.

Current law provides that one hundred percent of the cost of preventing or mitigating shore erosion attributable to Federal navigation projects or other Federal activities be borne by the Federal Government. Current law also requires the Secretary of the Army to give preference to these type of projects. Unfortunately, due to past decisions by the Federal Government many local entities have lost confidence in the Federal Government's ability to accurately assess the non-Federal cost of a project. Many local communities do not see the Federal Government serving as an honest broker that upholds the interests of all parties concerned. Instead, many communities feel the Federal interest is being held above the local interest to such an extent that some have resorted to litigation against the Federal Government. In an effort to restore confidence in the Federal Government's role as an honest broker, I am proposing that an independent board be established to determine the percentage of a shore protection project attributable to Federal activities. This board shall consist of one person appointed by the Secretary of the Army from the Coastal Engineering Research Laboratory and two persons appointed by the Governor of the State in which the project is located. One of the individuals appointed by a State's Governor shall be from academia and shall have outstanding credentials in shoreline and coastal systems. The other individual appointed by a State's Governor shall be an official within the State entity described earlier under the eligible State concept. The independent board will be responsible for approving or modifying the percentage of the project attributable to Federal activities.

The legislation I have proposed for shore protection policy will build upon the existing system by adding necessary policy changes that will allow the Secretary of the Army to administer a more effective program. The legislation will provide a framework and incentive for greater State and less Federal participation. This will allow limited Federal resources to stretch further and will ultimately allow more shore protection projects to move forward.

In the area of alternative water supply: One of the unique aspects of the Florida water system is that we frequently undergo periods of drought and periods of flooding. This is the nature of a system that has been modified by human manipulation of natural flowways. In the State of Florida, our growing population coupled with the need to protect our natural systems has created a water quality challenge. From 1995 to 1996 Florida added 260,000 new residents, or the equivalent of four new Daytona Beaches. Between 1980 to 1995, Florida's public water supply needs increased 43 percent, more than double the national average of 16 percent. This shows no signs of slowing down. Today, Florida continues to grow at the rate of more than 800 people per day.

Many other States on the eastern seaboard face similar challenges. For example, a recent article in New Jersey Monthly stated that New Jersey leads the Nation in the percentage of land mass that is classified as having a high vulnerability for serious water quality problems. According to the U.S. EPA, more than 66 percent of that State falls into the most precarious category for water quality.

In addition, as early as 1983, a U.S. Army Corps of Engineers study stated that deficits in water supply for the area south of the James River are projected to be as much as 60 million gallons per day by the year 2030. Groundwater withdrawals have caused water level declines of as much as 200 feet in some areas.

In the State of New York, water levels in aquifers are predicted to decline by as much as 18 feet and low flows in streams may be decreased by 90 percent in parts of Long Island.

In each of these cases, water supply is inherently tied to water quality. Problems such as groundwater overpumping, damage of existing wetlands, and saltwater intrusion of aquifers can cause irreparable damage to our water systems and surrounding ecosystems. For example, since 1906 wetland acreage in the State of Florida has shrunk by 46 percent, resulting in a loss of critical habitats as well as a key link in the replenishment of our aquifers. The development of alternative water sources that will help to resolve these types of issues and allow States to provide for future water supply needs without sacrificing environmental protection is my goal. Using this scenario, I am proposing to authorize a program in WRDA 1998

that would fund the design and construction of water source projects to conserve, reclaim, and reuse this most precious resource. The bill would authorize grants to State agencies for the purposes of maximizing available water supply while protecting the environment through the development of alternative water sources. Provided on a 50 percent matching basis, these Federal funds would augment existing State funds and make progress in this area possible.

The State of Florida is taking this issue seriously, and in 1998 alone has budgeted \$75 million in regional and State funds for development of alternative water supplies. The approach to alternative water supply development that I am proposing for inclusion into WRDA 1998 will insure water availability without compromising water quality.

Finally, in the area of the Everglades and South Florida Ecosystem Restoration: The Everglades restoration project is the largest restoration program in the world today. This vast region, which is home to more than six million Americans, seven of the ten fastest growing cities in the country, a huge tourism industry, and a large agricultural economy, also encompasses one of the world's unique environmental resources. Over the past 100 years, manmade changes to the region's water flow have provided important economic benefits to the region, but have also had devastating effects on the environment. Biological indicators in the form of native flora and fauna have shown severe damage throughout south Florida.

The work of the Army Corps of Engineers is essential to this effort. The critical projects authorized in WRDA 1996 has demonstrated substantial success. The South Florida Ecosystem Restoration Task Force, the Governor's Commission for a Sustainable South Florida, local sponsors, and the Army Corps have completed a review of over 100 potential projects, narrowed the list to 35 and ranked them in order of priority for accelerating the restoration of the South Florida ecosystem.

The Army Corps of Engineers began their work on these projects in December 1997 when they received fiscal year 1998 funds. Between December 1997 and June 1998, the Army Corps has issued 10 approvals for project letter reports, initiated plans and specifications on 4 of those 10 projects, initiated NEPA documentation on 5 of those 10 projects, and completed draft cooperative agreements with local sponsors on all 10 projects.

Construction on one project, the Southern Corkscrew Regional Ecosystem Watershed/Imperial River Flow-way restoration project is scheduled for groundbreaking in mid-July 1998. This project, a partnership between the Corps, the South Florida Water Management District, and Lee County, will restore historical sheet flow across a 4,600 acre tract of wetlands in southern Lee County. This will establish more natural hydrology on wetland habitat for wildlife, it will improve water quality of stormwater runoff into the Imperial River and Estero Bay, it will recharge surficial aquifers and preclude salt water intrusion, and it will augment flood control by improving natural storage in wetlands.

One of the four projects for which plans and specifications have been initiated is the construction of culverts along the Tamiami Trail, the only major thoroughway from the west coast of Florida to the east coast of Florida in the southern part of the State. This project involves the construction of multiple culverts that will allow increased flows of water from the northern end of the Everglades to the southern end without eliminating this transportation vehicle that is so critical to the citizens of Florida. In the original project outline, completion was estimated to cost approximately \$6.6 million. During their study of the hydrologic conditions in this area in preparation for construction, the Corps has concluded that the number of culverts required can be reduced from over 2 dozen to 12 or less, resulting in a reduced total project cost. Due to the unique type of authorization, these funds, originally allocated for Everglades restoration, can now be re-allocated to other critical projects. In this way, the authorization provided by this committee, has provided an incentive for keeping project costs low by allowing funds to be allocated within the Everglades restoration project.

The Army Corps has effectively streamlined its internal process to effectively implement the critical projects. Current planning indicates that these 10 projects will exhaust the \$75 million available under the 1996 authority.

In light of the success of this program, the criticality of the Everglades restoration program, and the fact that over 20 priority critical projects will not be authorized under the 1996 authority, I plan to recommend that Congress extend the program authority to the year 2002 and raise the program limit to \$150 million. This increase will allow implementation of 20 additional projects according to existing cost estimates. The extension of the authority to 2002 will allow the existing Corps projects to continue as planned (the initiation of this program was delayed for 1 year due to the fact that no appropriations were provided in 1996.) The additional 2-year authorization will provide adequate time for the Army Corps of Engineers to

begin work on additional critical projects that will be funded by the additional authorization that I am recommending under WRDA 1998.

Many of these 20 projects are critical to the restoration of the Everglades. One such project, the Ten Mile Creek Water Preserve Area will create a more natural salinity range in the North Fork Aquatic Preserve and the St. Lucie River Estuary through the creation of an 8000 acre-foot storm water retention reservoir. This project will help protect the fragile estuary system of Indian River Lagoon which has been severely impacted by increased flows.

Together, these three initiatives will help to insure the future of the State of Florida by protecting our water resources that are so critical to our environment and our economy.

PREPARED STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE
STATE OF CALIFORNIA

Thank you, Chairman Warner, for your leadership in moving us ahead with consideration of WRDA 98.

The Water Resources Development Act has been an important mechanism for California and the Nation to maintain our harbors and waterways and to protect our citizens and businesses against the devastating effects of floods. Since the Act was first passed in 1986, the Army Corps of Engineers has built numerous flood control works, coastal harbor and inland waterway improvements. These works have not only protected our communities but have also been an important instrument to their further economic development.

WRDA 98 will provide authorization for new projects that are sorely needed in light of the devastating "el Nino" weather system California has endured in the last year. Flood control has never been so important as it has been with the enormous rainfall we have received.

The legislation recommended by the President is welcome news for my State of California. Not only has the Administration submitted a long-term flood control protection plan for the Sacramento area but the President has proposed a new initiative, known as Challenge 21, to provide our communities a way to reduce flood costs in a more natural, environmentally beneficial manner.

I look forward to the testimony on this Challenge 21 plan. I believe many communities will be interested in this approach. In fact, in my State the people of Napa County learned how to modify their flood control plan and by working together produced a consensus plan that incorporates natural elements of flood control.

I also want to thank my colleagues here for their help in providing improved flood protection for the Sacramento area in the WRDA 1996 bill. Now the plan for the American River Watershed in the current Administration bill builds on the authorization for flood control that this committee approved in 1996.

Sacramento, our State capitol, is located at the confluence of both the Sacramento River flowing from the north and the American River, which cascades from the High Sierra mountains from the east. There are 400,000 residents, 130 schools and 5,000 businesses located in the floodplain and \$37 billion worth of property at risk. The most likely cause of a flood would be a breach in the American River levees which could inundate 55,000 acres.

The damages from even a 100-year flood would be comparable to the 1989 Loma Prieta earthquake which caused 63 deaths, almost 4,000 injuries and \$8 billion in direct property damage. Our awareness of this risk has heightened since the Corps determined late last year the 100-year level of flood protection has dropped to 77-year level now. Sacramento has one of the highest levels of risk and one of the lowest levels of protection. Over the next 30 years, Sacramento has a 1-in-3 chance of flooding.

In 1996, this committee approved a so-called "common elements" plan to provide a minimum level of flood protection. These were improvements that were common to all three flood control plans then under study. This latest plan, builds on a growing community consensus on the most cost-effective plan for flood protection. This plan is a two-part approach which involves increasing the flood control capacity of the Folsom Dam on the American River and raising and strengthening the existing American River levees.

Mr. Chairman, the Sacramento area has gone through a wrenching debate over the best approach to flood control with the specter of disaster always hovering above them. There is still a minority pushing for construction of a dam on the American River at costs ranging from \$1 to \$2 billion. The Auburn Dam would destroy nearly 50 miles and 10,000 acres of the American River and the diverse habitats of its canyons, where there are three species, including the bald eagle, on the Federal list of

endangered and threatened species. Congress now has twice rejected the high-cost, 500-foot Auburn Dam alternative that would have been built on an earthquake fault. Now, we have come together and resolved to move ahead on a realistic plan. This plan was approved by the Sacramento Area Flood Control Agency in March by a 10-to-2 vote. The Sacramento City Council has unanimously approved the plan and the National Wildlife Federation, Friends of the Earth, and the Sierra Club and have endorsed it.

It's time for us to move forward with a plan for permanent protection. Mr. Chairman, I ask unanimous consent that testimony from the Sacramento Area Flood Control Agency be entered into the committee record.

Thank you.

PREPARED STATEMENT BY HON. RON WYDEN, U.S. SENATOR FROM THE
STATE OF OREGON

Columbia River ports are one of the Nation's largest hubs for exports and international trade. But we need to accommodate the larger cargo ships that are now the state-of-the-art to stay competitive.

We have to keep the Columbia open for business to protect jobs in farms and factories from the Willamette Valley all the way to Montana and the Dakotas. The Columbia is our region's main street for wheat farmers and cattle ranchers throughout the West, and for the paper, lumber and aluminum mills throughout our region.

But today, the larger ships that are carrying more and more of the world's cargo exceed the current 40-foot channel depth. Already, one shipping line has moved its business from Portland to Vancouver, B.C. because of inadequate depth in the channel.

Deepening the Columbia Channel will improve the competitiveness of our ports and our entire region. This project will determine whether we will continue to have first-class ports in the 21st century.

I am absolutely committed to seeing this project move forward. I want to work with the committee and the Corps to all explore options for advancing this project in the Water Resources bill this year.

The Army Corps' hopper dredges stationed in the Pacific Northwest, the Essayons and the Yaquina, are also critical to maintaining navigation channels and to commerce in our region.

Dredges must be available on short notice to respond to emergency situations, such as restoring the Columbia channel following flooding. In addition, Corps dredges perform maintenance dredging work in the Columbia River channel and in a number of coastal ports each year.

Northwest port officials are convinced that maintaining a strong Corps dredging presence is essential for commerce in our region. These are hard-nosed business people. If they felt they could get better service for their money using private industry dredges, they would do so in a heartbeat. But they're not going to take riverboat gamble and go with unproven dredging contractors.

In the 1996 WRDA law, a compromise was negotiated to put another Corps dredge based in the Gulf of Mexico, the Wheeler, in reserve status as an experiment to see if private industry can do the work that Corps dredges have done in the past. The 1996 law called for the Corps to provide a report to Congress within 2 years on whether the Gulf dredge should be reactivated or maintained in reserve status.

Mr. Chairman, the required report has not been provided to Congress. This committee has no information to evaluate the impact of laying up dredges on our nation's commerce.

Despite this, the Corps has floated various proposals that would further cut back on the volume of dredging work performed by the Corps dredges.

I find it troubling that the Corps is proceeding in this way without having provided the report required by Congress. What is even more troubling is the Corps also seems to be totaling ignoring evidence uncovered by the U.S. Army Audit Agency indicating private contractors may have conspired to limit competition by rigging bids on Corps dredging projects.

Mr. Chairman, the Corps should not be rushing forward with reckless proposals to eliminate the Federal dredge fleet. We need to proceed cautiously in this area or we could end up with many of our ports left high and dry while the taxpayers get ripped off by unscrupulous contractors.

Senator WARNER. Thank you, Mr. Secretary. If you could summarize what you have in mind. The bill is very extensive, I've looked it over, and I don't know that you need to go section by section.

I think highlighting those portions that might be somewhat different between the 1986 to 1996.

STATEMENT OF HON. JOSEPH W. WESTPHAL, ASSISTANT SECRETARY FOR CIVIL WORKS, DEPARTMENT OF THE ARMY; ACCOMPANIED BY MICHAEL L. DAVIS, DEPUTY ASSISTANT SECRETARY OF CIVIL WORKS FOR POLICY AND LEGISLATION; AND MAJOR GENERAL RUSSELL L. FUHRMAN, DIRECTOR OF CIVIL WORKS

Dr. WESTPHAL. Thank you, Mr. Chairman. It's a great honor to be here today, and especially to have my first testimony after being confirmed just a few days ago before this distinguished subcommittee, and before you, Mr. Chairman, my Senator and my friend and my mentor here in the Senate. So thank you very much.

Mr. Chairman and distinguished members of the committee, I am accompanied by the Director of Civil Works, Major General Russell L. Fuhrman, and Deputy Assistant Secretary of the Army for Civil Works, Michael Davis. I will rely a lot on them for specific and technical information that may address some of the questions the members have today that I may not be able to address. But hopefully, I will be able to in the near future.

I think we share with the Congress and with this committee a strong commitment for water resources development and biennial authorization for this bill. A strong water resources development program is a sound investment in our Nation's economic future and in environmental stability for that future. Communities across the country rely on water resources projects to reduce flood damages, compete more efficiently in world trade, provide needed water and power, provide recreational opportunities and protect and enhance our aquatic resources.

We also have a responsibility to our project sponsors who are doing their part by sharing feasibility study costs and construction costs. Our goal is to match our sponsors' commitment with realistic, cost-efficient schedules and timely authorization for justified and environmental acceptable projects.

A 2-year authorization cycle shows our support for orderly water resources development. The Water Resources Development Act is the principal vehicle for obtaining necessary legislation to authorize projects that our studies have shown to be good Federal investments. Legislation is often necessary to realize the goal of making our programs more effective and efficient by addressing policy issues.

Mr. Chairman and members, as you are well aware, there are many pressing needs for water resource development in this country. We must work together to address these problems in the full light of our fiscal capabilities and constraints. And to help us meet our mutual objectives, we suggest the following principles be enforced in formulating our Water Resources Development Act for 1998.

First, at the heart of the Water Resources Development Act of 1986 were the beneficiary pay reforms, which included cost sharing. Cost sharing serves as a market test of a project's merits, ensures active participation by project sponsors and beneficiaries, and ensures project cost effectiveness. We have found it to be an emi-

nently successful policy. Cost sharing reforms enacted in WRDA 1996 should also be preserved.

Second, the Nation's water resources infrastructure must be maintained and improved to meet future needs. But 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 timeframe.

In light of the \$20 billion backlog of ongoing Corps construction projects and other authorized projects awaiting construction, the dollar magnitude for new projects and programs in the Administration's proposal is constrained. It is limited to authorizing vital new projects and programs, some of which are expected to be phased in over a number of years to give priority to completion of ongoing construction projects.

The total cost of the bill is \$1.462 billion, with a Federal cost of \$829 million, and a non-Federal cost of \$633 million. This will allow us to move forward with a more sustainable long-term construction program and more timely project delivery to non-Federal sponsors.

To justify the authorization of appropriations of constrained Federal dollars, we must assure the public that proposed projects have the full review and are in accord with the Federal laws and policies established to protect the environment and to set priorities for the use of those funds. The Administration urges Congress to restrict new authorizations, to justified projects likely to be funded over the next several years.

Now, for the Army Civil Works legislative program in this bill, Mr. Chairman, members, the Army Civil Works legislative program consists of important legislative proposals for the administration of the civil works program and authorization for projects recommended by the Administration. Let me just emphasize a few of these.

Senator Boxer mentioned Challenge 21. Challenge 21 is the centerpiece of the Army Civil Works legislative program for 1998, an important initiative, because it will provide the Nation with a comprehensive tool for reducing flood damage. This initiative expands the use of non-structural options to achieve the dual purposes of flood damage reduction and the restoration of riverine ecosystems.

Challenge 21 responds to those communities who have expressed a strong desire to reduce repeated losses and improve the quality of their environment. This new program will give the Nation additional tools for protection against flood damages. Challenge 21 will focus on non-structural solutions to reducing flood damages while maintaining the flexibility to use more traditional structures, like levees or flood walls, etc., where appropriate, create a framework for more effective Federal coordination of flood damage reduction programs, create a partnership with the community to develop a comprehensive solution to reducing damages and improving quality of life, and focusing on watershed-based solutions that can include the restoration of riparian wetlands and ecosystems.

Under this program, the projects will be coordinated fully with Federal, State, tribal, and local communities. Because the cost of projects will be cost shared, no project will be implemented unless State, tribal, and local sponsor support it. Thus, through coordina-

tion with other Federal agencies and State and local communities, Challenge 21 addresses a lesson we've learned from the past decades of floods, flood damage reduction efforts must include partnering between the Federal agencies and State, tribal, and local communities.

Watershed by watershed, Challenge 21 will build on existing programs and initiatives and expand partnerships with other Federal and non-Federal national and local entities. Among our key Federal partners, would include, for example, FEMA and the Department of Agriculture. Through Federal partnering, a Challenge 21 project could include an urban structure relocation piece led by FEMA and a rural wetlands restoration piece led by the Department of Agriculture's Natural Resource Conservation Service.

Thus, Challenge 21 relies on the collective knowledge, expertise, and authority of many Federal water resource agencies.

Mr. Chairman, there is in my formal statement more information about Challenge 21. But due to the committee's time constraints and votes, let me just go on.

Senator WARNER. We have a very good writeup prepared by our staff before us. So I think most members have a good understanding of this initiative.

Dr. WESTPHAL. Right. Mr. Chairman, the other key issue in this bill, of course, is shore protection policy. The Administration is also proposing a new approach to shore protection that will increase predictability and emphasize our commitment to undertake shore protection work. With the adoption of this approach, the Administration will consider, consistent with overall funding constraints, shore protection projects on an equal basis with other water resource development projects.

As you know, the Administration and the Congress have not given shore protection policy the same level of priority in funding. The Administration has two concerns. First, commitments on existing shore protection projects that involve periodic nourishment require a significant amount of future Federal funds. And we have found it difficult to initiate new projects in face of the costs of these comments.

Second, the Administration's concern is that while these shore protection projects produce storm damage prevention benefits, they also provide local recreation benefits, and that some of the revenue created in these areas and these projects should be dedicated to shore protection projects that provide such recreational opportunities.

To resolve both of these concerns, we have included in the Army Civil Works legislative program a proposal to advance the dialog on how to reconcile this important issue. And Mr. Chairman, it's on the record there, the proposal made by the Administration. I'll continue on with other WRDA initiatives in 1998.

We have in the bill another initiative concerning the Everglades and the South Florida ecosystem restoration. This provision extends the authorization for critical ecosystem restoration projects in South Florida through fiscal year 2000 to take advantage of the synergy and collaborative approaches that have evolved to implement a shared vision for ecosystem restoration. We need this exten-

sion because funds were not available to begin work on this important project in fiscal year 1997 as anticipated.

This program has been very successful. Fourteen reports have been received for critical projects, and 10 have been approved for implementation. These projects will provide immediate and substantial benefits to the ecosystem.

We are also proposing a lower Missouri River Aquatic Restoration Program, building on the legislation introduced by Senator Bond. This proposal will authorize a comprehensive report to be completed at full Federal expense within 1 year after funds are made available. The report will identify a general implementation strategy and overall plan for environmental restoration and protection along the lower Missouri River between Gavins Point Dam and the confluence of the Missouri and Mississippi Rivers and recommend individual environmental restoration projects that can be considered by the Secretary for implementation under section 206 of the Water Resources Development Act of 1996.

There are also several measures that will help us to better manage our important natural resources, primarily at numerous lakes and reservoirs. One of our more important measures will allow resource managers to retain funds resulting from increased collections of recreational user fees above the baseline collection. Eighty percent of the increased collections will go to the site from which the fees were collected, and 20 percent would be used agency-wide. This will, I think, serve as an incentive to improve collection and recreation user fees.

Also, there are several measures that will allow us to improve our program management. For example, we have included proposals to allow public and non-profit organizations to serve as project sponsors on aquatic ecosystem restoration and beneficial uses of dredge material projects. Another example is a provision that would allow the Secretary of the Army to accept non-Federal funds from State and local governments to expand our services in compiling and transmitting information on floods and damages.

Mr. Chairman, members of the committee, included in the Army Civil Works legislative program are projects recommended for authorization that have been reviewed and approved by the Administration and a conditional authorization for Grand Forks, ND, and East Grand Forks, MN.

The Administration bill includes authorization of much-needed additional flood protection to Sacramento, CA. The proposal is supported by a non-Federal sponsor, the Sacramento Area Flood Control Agency, and includes several phases. First, the Corps will complete the common elements authorized in the Water Resources Development Act of 1996. Second, the Folsom Dam will be modified so it could be operated in a way to better provide flood protection. Third, downstream levees would be re-engineered to safely pass the increased discharge from the modified Folsom Dam.

We understand the natural concern that some have about providing flood protection with levees. I should note that the existing levees have functioned well, and that the Corps will ensure that the new levees are engineered and constructed to pass the design flood in a safe and reliable manner.

Other projects included in the Administration's bill are the Amite River and tributaries, Louisiana, East Baton Rouge Parish watershed, the Guanajibo River in Puerto Rico, and the Rio Niagua in Salinas, PR. There are additional projects under review at this time that will be furnished to the committee as soon as the Administration reviews are complete.

Mr. Chairman and distinguished members of the committee, again I thank you for the opportunity to come before the subcommittee. I look forward to working with you and members of the committee and your staffs in developing an absolutely great WRDA bill this year, and support your efforts.

Senator WARNER. Mr. Secretary, you've had a lot of experience, and we look forward to working with you.

Dr. WESTPHAL. Thank you, sir.

Senator WARNER. I think this initiative by the President, which has been introduced by Mr. Chafee, Mr. Baucus, and myself, is a good foundation. And it's the intention of this committee to build on it.

The challenge before this committee is, this is a most unusual legislative cycle for a variety of reasons, my colleagues understand that very clearly. We're going to have to use the rough and tumble tactics we used in the highway bill, I think, if we're to move this bill through. Fortunately, on my right and on my left are able persons who've made possible that highway bill, and I hope that we can join together in a bipartisan way and get this legislation through.

So we'll start now on questions, and the chair will try and very rigidly apply the 5-minute rule, so each of the members present now can have that opportunity. We'll start off with the shore protection. Will you begin the budget for these projects? You know, there's not that history, and that's what concerns us. The past Administration refused to budget to support the authorization.

Dr. WESTPHAL. Well, Mr. Chairman, I think this new proposal will put all shore protection, beach nourishment projects on equal footing. I think there—I'm certainly going to work with OMB to make sure that we do budget for these projects.

Senator WARNER. That's the answer we want, you personally will do everything you can to see that it is covered in budget.

Dr. WESTPHAL. Yes, sir.

Senator WARNER. The Challenge 21, in the Administration bill you propose new continuing authority. We've covered all that. The program is drastically larger than any other. Why shouldn't this program be consistent with the current continuing authorities program?

Dr. WESTPHAL. Mr. Chairman, let me defer that question to Mr. Davis. He has worked long and hard on this particular proposal.

Senator WARNER. We welcome Mr. Davis, and your thoughts on that.

Mr. DAVIS. Mr. Chairman, we carefully looked at a variety of different levels as we were designing the Challenge 21 program. We were looking at some examples of communities around the country where we might be relocating structures. Typically, it's a fairly expensive proposition to relocate houses and businesses. So we believe that the \$75 million Army Civil Works limit in the legislation

is the appropriate level to allow us to work with small- and moderate-sized communities, that anything much less than that probably would not provide us too much utility in terms of meeting the objectives of Challenge 21.

Senator WARNER. All right. Now to the Harbor Maintenance Trust Fund. On March 31, the Supreme Court issued a decision. Since then, the Administration has informed Congress that it intends to pose a replacement system with a new collection method and a new way to distribute the funds called a Harbor Services Fund. What's the status of the effort?

Dr. WESTPHAL. Mr. Chairman, the Office of Management and Budget and the Corps of Engineers staff have been working on this proposal now for quite a while, certainly long before I came on board. Since my arrival, I've asked an additional set of questions about the fund and about the fees and what the possible impact would be to competitiveness among ports, our ports as well as our international competitive advantages.

And so they are continuing to work on this proposal and continuing to try to come up with something that will meet the legal tests and the economic tests that I think everybody wants on this. I expect that the Administration will have a proposal before the committee some time in the next few weeks. I couldn't tell you exactly when. I think the idea is to try to make sure that we give you a proposal that really is sound and well-analyzed, and that you can then move forward.

As this legislative session is a short one, I'm not certain that you're going to be able to finish it out this year, but we at least like to get you something as soon as possible.

Senator WARNER. Give it a shot to work with.

Last question: recreation user fees. Section 13.2131 authorizes the use of recreation fees to total more than \$34 million for the use of parks

Dr. WESTPHAL. Yes.

Senator WARNER. Of the total collected over \$34 million, 80 percent will remain in the park where the fee is collected, 20 percent will be used for other activities. Do you have any estimates of how much funding will be allowed to remain at a park—what percentage—are you going to stay to those percentages?

Dr. WESTPHAL. I believe all the money, correct me if I'm wrong, but I believe all the money will remain in the place that it is collected from. In other words, no funds will be shifted from one park to another.

Senator WARNER. So you might not split the fee now? Does anyone have an answer as to what you're going to do?

Mr. DAVIS. Mr. Chairman, the \$34 million baseline is what we're collecting now. We believe that if the amounts above that \$34 million could be rolled back into the project site, and under our proposal, 80 percent would go back to the project site, and then 20 percent would be used across the Nation to go back to various project sites.

Right now, there's no incentive for our resource managers, who are really constrained by limited budgets, to aggressively collect the fees. So we believe that while we're not raising individual fees,

that they will collect more fees and so this will go above the \$34 million baseline. That's where we would generate this revenue.

Senator WARNER. Thank you.

Senator Lautenberg.

Senator LAUTENBERG. Mr. Chairman, I appreciate the courtesy. I am here at your invitation, so I will defer to the members of the subcommittee.

Senator WARNER. All right, thank you very much.

Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman. As you know, we have a Senate Armed Services Committee meeting simultaneously with this, so I'll be leaving in just a moment.

I'd like first of all to say how pleased I am that Dr. Westphal is in the position he's in. I was very supportive of his nomination, and I think it was an oversight of our chairman to fail to mention that you had very deep roots in Oklahoma—

[Laughter.]

Senator INHOFE [continuing]. That he had been a professor at the Oklahoma State University, and that we've worked together in many capacities.

Let me mention something to start with that's parochial, which I mentioned to you I would do. I attend a lot of town hall meetings, probably more than most people do. I have approximately 10 each weekend, even during session.

I was in town meetings in Durant and McAlister a couple of weeks ago, and I've never seen such organized opposition to the operation of the Corps. Normally there would be a few people who aren't happy with some things, but this is very well organized. It has to do—I'll mention them since I know you have very competent staff that will be taking notes about this: Sunset Park on Lake Texoma, the road has been ripped up by the Corps and the park has been locked shut. And at Crowder Point, at Lake Eufala, the park has not been maintained for about 5 years now.

I'd like to hear, since you're new on the block here, how you plan to address some of these problems. I know it's not going to be the policy of the Corps just to abandon some of these facilities.

Dr. WESTPHAL. I will address them, and the best way for me to address them, of course, is to work alongside the Director of Civil Works, Major General Fuhrman. And I might let him say a few words about this. But I think the thing to do is to simply look into your concerns immediately, through the Director of Civil Works, talk to the District Engineer in Tulsa and find out exactly what are the issues and why, and try to get you a response as soon as possible.

Senator INHOFE. It wouldn't be necessary for General Fuhrman to make any statement at this time. By the way, I have worked very closely with the Corps of Engineers, not just in the 8 years I spent in the House, but also a mayor of Tulsa. They'll tell you we had a very close working relationship.

But around the State, there are problems like that, and I would like to address these two specific ones, and then perhaps talk about some others. As you were going through your summary, Dr. Westphal, you talked about some of the user fees. In looking over my summary, I saw the shoreline management program fees and

the regulatory program funding. These are the only two that I would consider to be fee or tax increases. Were you referring to one of these when you were talking about your user fees?

Dr. WESTPHAL. No. We were talking about the harbor services maintenance.

Senator INHOFE. I see. But couldn't these be characterized as fee increases, Mr. Davis?

Mr. DAVIS. Yes, sir.

Senator INHOFE. All right. We do want to look at those, because anything that affects a fee increase is something that gets our attention, of course.

On Challenge 21, one of the problems I have with this, it's my understanding from the staff summary that we received, you're talking about a total, this bill over a 6-year period, \$325 million. A cap would be \$75 million. Let's say that an average project would be, I don't know, \$30 million or something like that, I wouldn't have any idea.

You're talking about a very limited number of projects, which I like, because I see that I think we're giving up some oversight by virtue of adopting this policy. I would ask you first if you would agree with that statement. We in the committee would be giving up some of the oversight to the Corps by allowing the Challenge 21 program to go into effect.

Mr. DAVIS. Senator, that is part of the programmatic authorization. It would create a somewhat more streamlined approach to delivering projects to the community.

I think your assumptions are correct, that in the 6-year period, there will be a very limited number of projects. We're guessing anywhere from 10 to 20 projects probably over the 6-year period. In fact, we're viewing this as somewhat of a demonstration over a 6-year period.

Senator INHOFE. Would you anticipate 2 years from now coming back to this committee wanting to expand that program?

Mr. DAVIS. I don't think in 2 years. We do anticipate at about year four preparing a report back to this committee to disclose to you fully what we've done, the successes we're having, or the failures we're having, and work with you then to make any adjustments, either in terms of extending the program or changing the program.

Senator INHOFE. My time is up, but I do want to monitor that program to see just what types of programs are out there and what oversight we might be giving up. So I'll be working with you to make that determination, and welcome aboard.

Dr. WESTPHAL. Thank you, Senator.

Senator WARNER. Thank you very much, Senator.

Senator Wyden.

Senator WYDEN. Thank you very much, Mr. Chairman.

I have three questions, and I'm going to be brief. Dr. Westphal, No. 1, I note in your testimony that you want to reduce the time it takes for harbor projects to actually get on-line. As you know, in our part of the world, the Columbia River project, the deepening of that channel, that's my No. 1 concern as a new member of the Senate. It's our region's mainstream. It creates all the jobs all the

way from the Willamette Valley to Montana and the Dakotas, jobs for exports and wheat and shipping.

On the recently passed ISTEA legislation, Senator Graham has joined us and Senator Smith and Senator Chafee and I teamed up in a bipartisan way to create a process in ISTEA to streamline the administrative chores that are necessary to get these infrastructure projects completed.

You haven't had time to review that, but my first question is, would you look at that and be willing to work with us on a bipartisan basis? Because I think what we did in ISTEA could really be a road map to getting your objective of shortening the time necessary to complete these projects.

Dr. WESTPHAL. Yes, Senator, it would be ideal to look at some models. If you have one in ISTEA, we will certainly look at that and work with it.

Senator WYDEN. You will have it this afternoon.

Second question, with respect to the Corps' new agenda, and Mr. Davis was out there in Oregon working with us on it, have you given some thought to trying to move up the priority list, again, to shorten the timetable for projects, when a project has addressed major environmental concerns?

For example, in our part of the world, on the Columbia project, we are engaged in a major wetland restoration effort, and an effort to improve a species habitat. Given the fact that the Corps is going to make those values more important in the years ahead, would you be willing to look at a kind of expedited, fast-track kind of process, so that you could create incentives for those areas that were willing to do heavy lifting in terms of environmental protection?

Dr. WESTPHAL. Yes, I think that would be an excellent opportunity to move ahead on some things that have a really huge national benefit.

Senator WYDEN. All right. The third area that I wanted to ask you about real briefly involves something that Senator Kempthorne and I and a number of Senators have looked at, and that's the question of the minimum dredge fleet in the Pacific Northwest. We have written to you all twice now, in August 1997 and then in November 1997, offering our comments with respect to the minimum dredge fleet study. In the November 1997 letter, Senator Kempthorne and I and others said, "We ask that the study include certain analysis to allow Congress to evaluate the Corps' recommendations regarding the future of the fleet. We ask that the analysis include an examination of responsiveness to routine and emergency dredging requirements, industry competitiveness, comparison of dredging costs and industry capacity."

Now, the northwest delegation, again on a bipartisan basis, has repeatedly been trying to get this information from the Corps. Do you all anticipate responding to us at some point?

Dr. WESTPHAL. Senator, I did not get a briefing on the dredging fleet. It was one of the few things that we just didn't have time in the last 2 days, since I've gotten confirmed. But I did ask about responding in the form of a study, and I understand a study is due this summer. Whether that study will address your specific con-

cerns, I personally don't know. General Fuhrman may be able to address that.

If not, I certainly will see to it, I'll get a copy of that letter and make sure that we're——

Senator WYDEN. We would very much like to have the data and analysis the Corps is using to develop these proposals. This is a safety and security issue, particularly for small ports in our part of the world. As you know, on the basis of some of these past audits, getting rid of this system, which really does meet our needs, and privatizing this completely, could really cause chaos in our part of the world. We would like to have a response, and have been waiting now many, many months for it.

Having said that, Mr. Westphal, we wish you well, and have heard, as Chairman Warner noted, many good things about your experience. These issues are at the top of my agenda as a new member of the U.S. Senate. I look forward to working with you and I yield back, Mr. Chairman.

Senator WARNER. Thanks, Senator. I suggest that you drop the phrase "new member." You've won your spurs in this outfit.

Mr. Bond.

Senator WYDEN. May I ask a unanimous consent request, Mr. Chairman? I ask unanimous consent that my statement be made a part of the record, the questions of Senator Levin be submitted to the witnesses and they respond to them at a reasonable time, along with my questions?

Senator WARNER. Fine. You'll submit Senator Levin's questions on his behalf. I'll accept that, done.

Senator Bond.

Senator BOND. Thank you very much, Mr. Chairman, and I too ask that my full statement be made a part of the record.

I want to join with you in welcoming Dr. Westphal, and I guess if Senator Inhofe has claimed him as an Okie, we would like to say also that we're very proud of the relationship we've had with him through the University of Missouri, and we're very pleased to see a man of his leadership and capacity in this position.

Dr. Westphal, I guess I would be tempted to ask, if Congress adopted anything resembling the President's budget for water projects, would you recommend that he veto it? And I'm not going to ask that, because you shouldn't have to choose between loyalty and responsible common sense.

Dr. WESTPHAL. Thank you.

[Laughter.]

Senator BOND. I think that the measure of your job performance is going to be your independence from OMB. They know the cost of everything, but perhaps you could explain to them the value of some things.

We have a project in Kansas City which protects industries employing 12,000 workers. And the Administration set up a budget which, if adopted, would send the contractors home next May, stop it right in the middle, cause tremendous cost overruns, as well as danger. It's not just dangerous, it's inefficient and more costly.

They didn't just decimate structural flood control, but environmental programs as well. And I'm hearing about lots of problems, as Senator Inhofe mentioned, from constituents near Corps-oper-

ated lakes. They report that the rangers are blaming closures on congressional budget cuts, which as we all know is not true. That's not where the budget cuts are coming from.

Dr. Westphal, I'm sending you a letter on the subject today, and I hope you can respond. We have social security aid, locks, and dams on the upper Mississippi River which must be modernized. We can all discuss how best to do it. But we all know that we have to do it without delay. If neglect continues, we will soon be in the unenviable position of trying to catch up with the water infrastructure of developing nations, who are really winning our markets.

I have, as you indicated in your statement, and I thank you very much for the comment on it, a proposal that was worked out in what some have described as detente. Our good friend, Scott Faber, of American Rivers, the Corps of Engineers, the barge industry and the Missouri Farm Bureau, to improve the health of our waterways, the environmental well-being.

But frankly, under a \$3.2 billion budget, that was proposed by the Administration that couldn't be funded. We just can't operate that way. If the Administration wants the Congress to fund Challenge 21, they shouldn't send up a \$3.2 billion budget next year.

There are some in the body who oppose congressional earmarks because they argue budgeting should be left to professionals to exercise care and wisdom, in the absence of politics, to formulate responsible budget priorities. As long as this budget is written by OMB with the Corps gagged and sitting on the sidelines, that argument remains at best laughable.

So let me ask you a question that all of my colleagues at agriculture are interested in, we think American agriculture can be very competitive in the world market, we can do our share and gain the revenues if we are competitive. But we can only be competitive if we maintain our efficient, environmentally friendly river transportation system.

Can you envision maintaining our export capacity without modernizing locks and dams on the upper Mississippi River?

Dr. WESTPHAL. Senator, I think we have to modernize and improve and work and do the best we can to do the best job possible to maintain our entire system operating, the upper Mississippi and lower Missouri, lower Mississippi, everywhere. And I certainly will work hard to assure that that modernization takes place in a timely manner by working with OMB to avert these types of budget crises in the future, and come up, work with this committee, work with the Congress, the House and the Senate, to produce a budget next year that I think can get us on a stable road toward the proper management, upkeep, modernization of our system nationwide.

Senator WARNER. Senator Bond, I'm sorry to interrupt. I have to go to the floor, I'm co-managing the annual authorization bill on Defense. I will return. Can you take my place for a while?

Senator BOND [assuming the chair]. Mr. Chairman, can I look around and see who's left?

Senator WARNER. It's interesting, this year's budget was \$1.3 billion, the request was \$740 million and the appropriations committee moved it up to \$1.2 billion. But therein lies the challenge in the allocation of these funds.

Had the Senator from Missouri completed?

Senator BOND. Mr. Chairman, I like the sound of Dr. Westphal's last response, so I won't push him. We hope that you do have the independence to fight for the kind of funding that anybody who takes a responsible look at the condition of our locks and dams knows that we must have.

And with that, let me turn to our distinguished Senator from California, Senator Boxer.

Senator BOXER. Thank you so much, Senator Bond, and welcome, everybody.

I want to just say that the Corps has come such a long way in the way it views these projects, and I've had so much experience, both as a local elected official and Member of Congress and now of the Senate. When the Corps used to come in, the community was always very nervous about these huge walls and concrete ditches. Now we're working with you and NAPA to create a wonderful way to control flooding.

Of course, after El Nino we have to move. Cordo Madera Creek was stopped, the flood control project there, for 25 years, because the community wasn't going to go with a big concrete ditch. So we're moving in the right direction.

I like Challenge 21, because it recognizes this, and it officially recognizes this. The point is, what we can do is more environmentally friendly projects that work very well, that cost less. And as you point out, bring in the local people, so that we're all making these decisions, not a top-down kind of decisionmaking.

So with that as a preface, I want to thank my colleagues, in addition to you, for helping us in 1996 in the WRDA bill to plan for protection for the Sacramento area. And I want to just take a moment until my time expires, perhaps, talking about this important project.

Sacramento, our State capital, is located at the confluence of both the Sacramento River, flowing from the north, and the American River, which cascades from the High Sierra mountains from the east. There are 400,000 residents, 130 schools, 5,000 businesses located in the flood plain, and \$37 billion worth of property at risk. The most likely cause of a flood would be a breach in the American river levees, which could inundate 55,000 acres.

Now, given this situation, there's been a great deal of concern from the community. Because the damages from even a 100-year flood will be comparable to the 1989 Loma Prieta earthquake, which caused 63 deaths, almost 4,000 injuries and \$8 billion in direct property damage.

Now, we know we have to do something, and therein was the challenge for the community. And of course, it's California, a big argument about exactly what to do.

I am pleased to tell you that the community has moved toward an agreement here. And that agreement is reflected in this budget, because although I am also not happy with the amounts, I would concur with my distinguished friend from Missouri. We are moving to fund the American River project, which is called a step release plan, and we are saying no to an enormous Auburn Dam project which would take place on an earthquake fault, would cost between \$1 billion and \$2 billion, compared to a \$400 million project. And

in terms of a 400-year storm event, wouldn't do any better than the step release project that we're putting forward.

We still have a few people, I say to my friends here, who want to see the Auburn Dam built. I am not going to come to my colleagues and ask you to fund this kind of a project. We can do flood protection, very good flood protection, for less, and we can do it in a way that doesn't destroy the environment. So I am very pleased that the Administration's proposal reflects this new consensus, the local electricians all agree with this.

As I say, there are some who believe the Auburn Dam is the answer.

I lay this out here, because there could be some future debate on the floor of the House on this. We have a divided congressional delegation on it. But it's going to be an interesting debate.

So what I would like to do is ask that my full statement be placed in the record at this time, and as I have a couple of minutes left—

Senator BOND. Without objection, your full statement will be included, Senator Boxer.

Senator BOXER. Thank you, Mr. Chairman.

Without going through all these questions, I'm going to submit some for the record, I want to ask this question. The American River Project in the Administration's bill calls for raising and strengthening the downstream levees on the American River. Based on the Corps of Engineering's experience, do you believe the Corps can safely construct the step release plan to provide the intended level of flood protection?

Dr. WESTPHAL. Yes, I do. We're pretty confident about that.

Senator BOXER. General, do you agree with that?

General FUHRMAN. Yes, we can safely construct those levees.

Senator BOXER. Excellent.

I have a question on the Maritime Infrastructure Bank, very quickly. I know that the Corps and the OMB are working on ways to prepare a proposal to finance navigation and other improvements at our major ports dealing with international trade.

Will this plan include assistance for medium-size ports and small craft harbors which contribute to regional economic development? If it does not, will you work with me in looking at the California Maritime Infrastructure Bank? Because we do have that in our State, and we really need to help some of these smaller harbors. California is going to grow another 18 million people. We are the point of the Pacific Rim trade. Would you respond to that?

Dr. WESTPHAL. Senator, I'll be delighted to work with you on that. I think that's a very important priority.

But I cannot tell you right now exactly what the plan will do with respect to the small harbors.

Senator BOXER. When will you have the answer?

Dr. WESTPHAL. We are under such, it's such a complex issue and there's so much study going on in our analysis, I think it will be several weeks before we get something to the committee. But as soon as we do, I will be glad to work with you on it.

Senator BOXER. Thank you very much.

Senator BOND. Thank you, Senator Boxer.

Senator Graham.

Senator GRAHAM. Thank you, Mr. Chairman.

First, I have an opening statement that I would like to submit for the record.

Senator BOND. Without objection.

Senator GRAHAM. Thank you, Mr. Chairman.

My questions are going to focus on two areas. First, is the Florida Everglades, and second are shore protection issues. One of the innovations in the WRDA bill of 1996 was the establishment of a concept called the Everglades and South Florida Ecosystem Restoration Critical Projects, which was a means of approaching projects which were urgent but which required additional scientific exploration before they were finalized. This committee agreed under certain conditions to allow these projects to go forward without the type of formal authorization project by project that is normally utilized.

In the 1996 bill, there were some 100 potential projects that were submitted as possible critical projects in the Everglades. Those were narrowed down to 35, which were actually approved in the legislation. There were caps imposed on those projects, including a global cap of \$75 million.

That global cap has been largely exhausted with 12 of the 35 projects having been undertaken. There are now proposals to provide additional funding, so that the balance of those 35 projects could be funded as well as, I believe there may be recommendations for two to five additional projects to be added to that original group of 35.

So I guess my question is, have you reviewed this matter, and if so, do you have a recommendation as to what authorization would be needed for the projects, those that were not funded in the last 2 years, and those that might be added to be implemented, and what would be an appropriate time extension of the program authority in order to complete these critical projects?

Dr. WESTPHAL. Senator, I have not had time to fully review this. And to give you a really complete answer, let me turn to the Deputy Assistant Secretary, Michael Davis, who has worked on the task force.

Senator GRAHAM. Thank you.

Mr. DAVIS. Senator, I think under the existing legislative framework that you gave us in 1996, we have to have at least a 1-year extension of the authority to take advantage of this whole \$75 million Federal funding that would be available for critical projects. As you said, we currently have about 14 projects under review, 10 of those have been approved and are moving forward. Roughly the top 12 of those would exhaust that \$75 million.

So as you indicated, there is a list of 35. We would only get through the first 12 under the current \$75 million limit.

Senator GRAHAM. So I guess the question is, do you have a recommendation as to what additional authorization levels should be provided for those critical projects that will be initiated during the next 2-year period, and second, a recommendation as to the time of extension for those additional projects?

Mr. DAVIS. If the funding limit remains at \$75 million, we believe that 1 year would be an appropriate extension. If we go beyond that, then that would be commensurated with the amount of

money, of course. If you recall, in 1996, the Administration submitted a bill that asked for \$150 million critical projects program. So while we haven't gone through the formal clearance process within OMB and the Administration, I suspect the Administration would continue to support limits up to that amount.

Senator GRAHAM. I would like to ask if you would raise those issues with the Administration, so that we could have their current recommendation. I know the priority that the Administration has placed on Everglades restoration. There is a strong sense of urgency, of moving forward.

We've gone from a winter situation in which we were dealing with a flood, and now we're into summer, dealing with a drought, both of which indicate the fragility of that important national treasure, and the need to restore the natural conditions to the maximum extent possible at the earliest possible date. And these critical projects have that as their common objective.

The second area is related to shore protection. There have been some indications that the Administration may be reviewing its prior policy of "no new starts" for shore protection projects. Could you comment as to whether the Administration intends to reverse its previous "no new starts" policy and include shore protection projects along with navigation, flood control and environmental restoration as major program areas for which the Administration will recommend budget authority?

Dr. WESTPHAL. Yes, Senator. I think the language in the legislation would essentially put shore protection on a par with these other projects. And it's not intent on not recommending new starts.

Senator GRAHAM. What?

Dr. WESTPHAL. It is not intent on saying, "no new starts" on shore protection.

Senator GRAHAM. Well, that's very good news. I know it's good news shared by all the members of the committee who represent areas that are affected by this, and the constituents of Senator Bond, who want to come and take advantage of good restored coastal areas.

[Laughter.]

Senator BOND. Thank you very much, Senator Graham.

Senator Lautenberg.

Senator LAUTENBERG. Thank you, Mr. Chairman, briefly a couple of things.

No. 1, in reference to Senator Graham's inquiry, and welcome, Secretary Westphal, we'll skip the Assistant and all that kind of stuff. And that is, that to recognize shore restoration projects for what they really are, when one talks about flood control, it's fairly easy to see that it's protection of life and property and economy and so forth.

But it's no different with shore protection. These are virtually, in my view, the same thing. The coastal States have the same concern about their coastline as those States more inland have concerns about floods, etc. Therefore, as far as I'm concerned, the priorities ought to be just about the same. Because ultimately, the economy of these areas, the economies are very seriously affected if there is virtually no sand replenishment, no restructuring of the shoreline facilities.

So I hope, Dr. Westphal, that that will be kept in mind as this legislation develops. And I want to ask one question, that is, what is the differentiation between the difference in Federal share for the 50-year renourishment programs and that which is 65 percent non-Federal, as I understand it, and 35 percent local, as opposed to the 65 percent Federal, in one case 65 non-Federal and another.

Who there can give me just a quick understanding of which falls into place at what time?

Dr. WESTPHAL. For the initial project, it's 65 Federal share. For the periodic nourishment, it comes in the out years, it would be a 65 non-Federal cost share.

Senator LAUTENBERG. So if it's a new project, one that hasn't been treated before, it's 65 percent non-Federal?

Dr. WESTPHAL. Sixty-five percent Federal.

Senator LAUTENBERG. Sixty-five percent Federal.

Dr. WESTPHAL. Of the initial construction, the initial construction project.

Senator LAUTENBERG. Right.

Dr. WESTPHAL. New start, 65 percent Federal, 35 percent non-Federal.

Senator LAUTENBERG. And thereafter, the updates are at a different ratio?

Dr. WESTPHAL. Right.

Senator LAUTENBERG. I'm interested in the non-structural alternatives to flood control. That's a very, I think, interesting approach to how we solve the problem longer term. And the idea is gaining popularity in my State, New Jersey.

How do we move along these projects that are already authorized by the committee, already in the planning stages, and while supporting some of these new approaches, it presents kind of a dilemma as to where the priorities fall?

Dr. WESTPHAL. I think, Senator, the non-structural approach is a growing approach, as we look at flood issues, not so much in terms of flood control now as we look at them in terms of preventing flood damages. So as we look at opportunities to save billions of dollars in losses and to save lives and to work out ways in which we can also protect and enhance environment and security of people, we're turning more and more to non-structural types of opportunities. Challenge 21 is a way of beginning that process.

But that's not to say that in situations we must continue to have the structural ability to protect the communities and cities and towns and farms and people's livelihoods and lives through structural methods. We will continue along both paths, and where it's feasible to do one, we'll try to do it.

I don't believe that the Administration is following one path over the other. I think we're trying to do it in an even and balanced way.

I think the non-structural opportunities, I think also work well with the whole set of priorities that the Administration has placed on emergency response disaster relief with FEMA and its programs. I think it allows us to work with them very well, and in a very consistent and very deliberate fashion to bring about some reduction in the amount of damage that our communities can sustain.

Senator LAUTENBERG. Thanks, Mr. Chairman.

Senator BOND. Senator Lautenberg, I see that there is a vote, it has already started. Senator Graham, do you want to ask questions of this panel before we leave?

Senator GRAHAM. If I could, Senator, it will be short, and it will be more in the nature of a concern.

Senator BOND. I tell you what, Senator Graham, you will have the gavel, stay as long as you want. Then you might excuse and recess the hearing until the chairman can return and introduce the next panel.

Senator GRAHAM. We will take final action on the WRDA bill before—

[Laughter.]

Senator BOND. Yes, right. Thank you, Dr. Westphal.

Senator GRAHAM [assuming the chair]. Dr. Westphal, I was remiss in not expressing my pleasure that you are going to be filling this position. I have had an opportunity to work with the Corps of Engineers for a number of years, and have been impressed with the quality and professionalism of the Corps, and the Corps' growing recognition of the challenge of preserving our environment while it meets some of our traditional protective needs, such as for flood control. I'm certain that you and those who join you today will continue to enhance that proud tradition.

One concern that I have is the President's proposal for Challenge 21 initiatives. I think the program of hazard mitigation has a great deal to recommend it. My concern is fiscal, and that is, with the recommendation for an authorization level of \$325 million, will there be a commensurate increase in the recommended budget authority for the Corps of Engineers, or will this \$325 million become a competitor with existing Corps commitments for future funding? Could you enlighten us as to how you see this relating to the overall existing program and commitments of the Corps?

Dr. WESTPHAL. I believe the program is seen essentially as another way of addressing the issue of flood damage reduction, much the same as you would look at building a levee or another structural means of flood control or flood prevention. So in that regard, I think it is treated as just another tool used by local communities to address a very serious and dangerous problem, where it's relevant to address it.

The Corps has asked each of the divisions to come up with examples of projects that could work well with this type of approach, and they have submitted a number of examples, so I think we're ready to begin with that. But I don't think that it unfairly competes with anything else that would be required in another community that would be of a structural nature.

Senator GRAHAM. So are you saying that if there has already been a decision made that there will be some Federal role in a particular geographic area for flood control that this will fund one of the alternative means of achieving those objectives?

Dr. WESTPHAL. Well, Senator, remember, the Challenge 21, the whole idea of this program is to assure that local communities have a say in what types of approach is taken. It's a cost-shared project just like any other project. So the communities must decide whether they want this non-structural means or whether they

want something else. And they're going to be footing part of the bill, they're brought into the picture directly as a participant and a decisionmaker in what kind of method they're going to use.

Senator GRAHAM. Would one of the sanctioned tactics for Challenge 21 be land acquisition?

Dr. WESTPHAL. Yes. But again, as this is a community decision, it would be cost-shared. Yes.

Senator GRAHAM. I might say, I'm a strong believer in riverine protection by acquisition, and am proud of the fact that the State of Florida has had an aggressive program of acquiring the flood plain of many of its major rivers. I doubt that there is a major river in the United States which has as much of its flood plain in public ownership as does the Appalachicola River, for instance. And by doing that, the circumstances which then lead to the necessity for public intervention after the disaster, such as replacing structures that were inappropriately located in that flood plain, has been significantly mitigated.

So I support this principle, and look forward to learning more about the details of how it's going to be implemented.

I'm afraid that I'm going to have to leave for the vote. Therefore, I will take the great authority that has been vested in me to temporarily adjourn the meeting until we return after the vote is completed.

Thank you.

Dr. WESTPHAL. Thank you, Senator.

[Recess.]

Senator KEMPTHORNE [assuming the chair]. Please take your seats so we can continue this hearing. And would the next panel of very good witnesses come forward.

I'll explain to all of you, the reason you're seeing musical chairs up here, we have the Defense bill, a number of us are on the Armed Services Committee as well as on this committee. So we're shuttling back and forth. Senator Warner asked me if I would convene the second panel, so that we could begin taking your testimony. And Senator Warner will be here momentarily. So I appreciate this, and appreciate your understanding of that.

Our second panel consists of Mr. Kurt Nagle, president, American Association of Port Authorities; Mr. Scott E. Faber, who is the director of Flood Plain Programs, American Rivers; Honorable Louisa M. Strayhorn, councilwoman, Virginia Beach, VA; Mr. Grover Fugate, executive director, Rhode Island Coastal Resources Management Council; Honorable Kenneth Pringle, Mayor, Borough of Belmar, Belmar, NJ; and Mr. Stephen Higgins, Beach Erosion Administrator, Broward County, FL.

With that, Mr. Nagle, would you like to begin.

STATEMENT OF KURT J. NAGLE, PRESIDENT, AMERICAN ASSOCIATION OF PORT AUTHORITIES

Mr. NAGLE. Thank you, Senator Kempthorne.

Good morning. I'm Kurt Nagle, president of the American Association of Port Authorities. AAPA represents the public port agencies throughout the western hemisphere. My remarks today reflect the views of AAPA's U.S. delegation.

AAPA commends you and this committee for convening this hearing on the Water Resources Development Act of 1998. Also, I'd like to thank the members of this committee for their strong leadership earlier this year on TEA 21. As you know, TEA 21 marks the next step in the development of a truly intermodal transportation system as new policies are put in place to address the growing need for efficient freight movement from ports to highways and railways.

This Nation's public ports are partners in this effort to develop a truly intermodal transportation system. If I leave one message with you today, it is that ports and all who benefit from the services we provide depend on biennial passage of water resources legislation as well as continued adequate annual appropriations levels.

Navigation projects are our Nation's highways to the international marketplace. As you know, the Federal investment in improvements to our Nation's infrastructure is matched by a local share, as well as a very substantial local investment in landside terminal facilities. These investments generate significant economic returns at the local, regional, and national levels.

All of the benefits that justify inclusion of navigation projects in the water resources bill are national economic development benefits. In my testimony today, in addition to stressing the importance of passing a water resources bill this year, I'd like to stress four points.

First, the need to continue to review and improve the partnership between the Corps of Engineers and the ports forged in WRDA 1986. Second, the port industry's alarm at the President's fiscal year 1999 budget request as it relates to investment in our Nation's deep draft harbors. Third, the need to ensure continued funding for maintenance dredging in light of the Supreme Court decision ruling the harbor maintenance tax unconstitutional as it applies to exports. And fourth, the need to continue to review and improve dredge material management policies and practices to avoid costly delays in dredging projects, ensure the protection of the environment, and gain additional benefits to the Nation.

The enactment of the Water Resources Development Act and Federal investment in navigation is of critical importance to the Nation's economy. If projects are not authorized, the national benefits, as well as regional economic diversification and job creation opportunities, will be delayed.

I would like to address some of the policy changes that U.S. ports would like to see included in this authorization bill. First, AAPA believes that Congress should revise the cost-sharing formula to adjust the upper cost-sharing threshold to reflect the changes that have happened in the general cargo fleet over the last 12 years.

The fact is that in the years since the cost-sharing formula was established in 1986, the container ship fleet has undergone a major evolution. The world's major ocean carriers have greatly increased the size of vessels and the number of large ships that they deploy. A recent Maritime Administration report documents the trends in general cargo ship design and their impact on transportation infrastructure. The report finds that by the year 2010, one-third of con-

tainerized cargo will be transported on vessels carrying more than 4,000 20-foot equivalent units, or TEUs.

AAPA therefore believes that the norm for general cargo navigation channels will be as great as 53 feet. And we ask that the cost-sharing formulas in WRDA be amended so that the 60 percent cost share should be triggered at 53 feet, rather than the current 45 feet, to reflect the changes in these vessel types and sizes.

In our written testimony we identify additional recommendations for policy changes that will simplify and streamline the partnership between the Federal Government and the Nation's public ports.

Let me turn to the Administration's proposed budget request for the Corps of Engineers, which is nothing short of a disaster for deep draft navigation projects. The proposed budget seeks appropriations for investments of only \$40 million in fiscal year 1999 for new construction of deep draft projects. This amount is only 12 percent of what is needed to fund ongoing and authorized new projects.

We appreciate the Senate's leadership in passing an annual appropriations bill for the Corps of Engineers that restores more than \$140 million in needed funding for harbor improvements over that proposed by the President.

With regard to the harbor maintenance tax, AAPA is greatly concerned that given the Supreme Court decision to strike down the tax as it relates to exports, the Federal Government must continue to ensure that maintenance dredging continues uninterrupted. AAPA members believe that, as was the case prior to 1986, maintenance dredging should be funded from general revenues. There is no user fee system that can equitably raise revenues from the users of navigation channels in any reasonable relation to the distribution of benefits to the entire Nation.

Many options were considered by the Congress in developing the ad valorem harbor maintenance tax funding mechanism for maintenance dredging back in the early to mid 1980's. Unfortunately, the only option to survive the debates, the harbor maintenance tax, the ad valorem fee, was found unconstitutional by the Supreme Court. It does not appear that there are significant new or old options that would work better today.

I would also like to submit for the record, if I might, a white paper on the maintenance dredging issue and why treasury funding is appropriate.

Senator KEMPTHORNE. Without objection.

[The white paper follows:]

FEDERALLY-FUNDED MAINTENANCE DREDGING: SUSTAINING AMERICA'S ACCESS TO THE WORLD

INTRODUCTION

The U.S. Supreme Court issued a short, unanimous decision in March 1998 finding the Harbor Maintenance Tax (HMT) unconstitutional as applied to exports. The decision states that the HMT is a tax, not a user fee, because the ad valorem tax is not a fair approximation of services, facilities or benefits furnished to the exporter. The Court said that in order to be a user fee, the connection between a service the government renders and the compensation it receives for that service must be closer than is present in the case.

The HMT was enacted by Congress in 1986 to recover 40 percent of the cost of maintenance dredging in the Nation's deep-draft navigation channels. Previously, such dredging expenses were paid for entirely out of the General Treasury. In 1990,

Congress more than tripled the HMT to recover 100 percent of maintenance dredging expenses. This paper describes why the maintenance and improvement of navigation channels has historically been a Federal responsibility and suggests a number of reasons why the Federal Government, through appropriations from the General Treasury, should resume responsibility for funding maintenance dredging.

WHY IS THERE A FEDERAL INTEREST IN NAVIGATION?

Waterborne commerce has been key to the growth and security of the Nation since colonial times. The Founding Fathers knew that only through active commerce, an extensive navigation system, and a flourishing maritime industry would the new nation survive against foreign powers. Such systems were also viewed as essential to holding the several States in union. Consequently, the Constitution vested with the Federal Government sole jurisdiction to regulate interstate and foreign commerce. The Supreme Court has held that Federal supremacy in the regulation of commerce includes "navigation within the limits of every State in the union; so far as that navigation may be, in any manner, connected with 'commerce with foreign nations, or among the several States . . .'" (*Gibbons v. Ogden*, 53 U.S. at 457, 13 L.Ed. at 1064).

Since the birth of our Nation, Congress has authorized and funded activities to ensure free and open access of the Nation's waterways to navigation. In 1789, Congress authorized the first navigation channel improvement projects. The General Survey Act of 1824 established the U.S. Army Corps of Engineers as the agency responsible for the Nation's navigation system. Since that time, the Federal Government has consistently exercised its power to develop and maintain a navigation system for the benefit of the whole nation.

Trade Benefits

Today, safe and efficient navigation is just as important as it was in colonial times. The entire U.S. economy depends on an efficient and reliable transportation system to remain competitive in domestic and international markets. International trade's impact on the U.S. Gross Domestic Product (GDP) is growing dramatically. In 1970, trade represented only 13 percent of U.S. GDP. By 1996, trade had grown to account for 30 percent of GDP, or about \$2.3 trillion. More than 11 million U.S. jobs now depend on exports—1.5 million more than just 4 years ago. Significantly, jobs supported by goods exports wages are 13 to 17 percent higher than non trade-related jobs in the economy.

Navigable channels, railways, highways, and ports are links in the transportation chain that allow manufacturers, buyers, and sellers to send and receive goods quickly, safely, and efficiently. The resulting benefits are ready access to a wide variety of products and services, internationally competitive exports, and lower costs for consumers. Maintenance of deep-draft navigation channels is a key component of an efficient national transportation system, and increasingly so as larger and larger vessels are built.

To maintain and improve our inland transportation system, the Federal Government spends nearly \$35 billion per year on projects authorized under the Intermodal Surface Transportation Efficiency Act. Federal spending for maintenance dredging of navigation channels is only about \$500 million.

All ports and Federal channels serve multi-State needs. The foreign trade activities of each State are supported by a variety of ports both within and, more often, outside the State. On average, each State relies on between 13 to 15 ports to handle 95 percent of its imports and exports. The goods from 27 States leave the country through the ports in Louisiana alone. Midwestern grain supplies the Pacific rim market through ports in the Pacific Northwest. Imported crude oil refined in New Jersey and Pennsylvania reaches consumers on the entire East Coast—from Maine to Florida. Steel that travels to major Midwestern industrial centers is delivered cheaply and efficiently through Great Lakes ports. Ports on the West Coast handle goods such as cars, computers, and clothing, which are destined for consumers throughout the country.

Many of this country's export products are price-sensitive commodities which require well developed and maintained navigation channels to remain competitively priced in international markets. For example, 95 percent of U.S. coal exports leave the country through U.S. deep-draft ports. For each foot of draft not dredged, ships carry less product—making each voyage less efficient and more costly. Maintaining a channel at 43 feet instead of 44 feet may mean the difference of 750 fewer tons of coal loaded on a single ship, often 5 percent of a ship's total cargo potential.

Because shipping contracts can hinge on a few tenths of a cent per bushel of grain or ton of coal, transportation costs can be the deciding factor for foreign buyers choosing between American or foreign bulk products. Without access to efficient wa-

terborne transportation, U.S. bulk commodities could not compete in international markets.

Safety and Environmental Benefits

In the same way that highways are plowed clear of snow and ice in the winter, more than 90 percent of the Nation's top 50 ports in foreign waterborne commerce require regular maintenance dredging. Together these ports move nearly 93 percent of all U.S. waterborne commerce (by weight) in a given year. Without dredging, many port facilities and navigation channels would be rendered non-navigable in less than a year. For example, it is not uncommon for a river to accumulate sediment at a rate of 5 to 6 feet a year. Without routine dredging, areas of the navigation channel could change from 40 to 35 feet in 1 year. Such a dramatic change would prohibit many ships from entering the channel or force ships to carry only a fraction of their intended load.

Making waterways safe for navigation is another important national benefit of routine maintenance dredging. Channels that accumulate sediment become dangerous because they increase the risk of ships running aground. Groundings are expensive not only in cargo and time lost, but groundings may also pollute the environment if ships' hulls are breached and cargo is spilled. Well-maintained channels eliminate any surprise shoalings or buildups that may cause mishaps harmful to the environment.

When waterways are not regularly dredged, ships may have to be lightered—that is, they have enough cargo transferred to or from vessels of lesser draft so that the primary ship is light enough to transit the harbor safely. Aside from the additional handling costs associated with the practice, lightering bulk liquids increases the chance of spillage and pollution. That environmental risk could be avoided if the primary vessel could unload all of its material at the port.

National Defense Benefits

In the late 18th century, the new Congress also recognized the importance of Federal responsibility over navigation for the critical role it plays in our Nation's defense. That role has never been more apparent than during the loadouts of military cargo and personnel during Operation Desert Shield/Desert Storm. The huge buildup of U.S. forces in and around the Persian Gulf would have been impossible without the modern facilities and strong support provided by America's commercial ports.

According to the U.S. Military Traffic Management Command (MTMC), between August 1990 and March 1991, MTMC loaded 312 vessels and more than 4.2 million measurement tons of cargo at 18 U.S. ports for delivery to the Persian Gulf in support of Desert Shield/Desert Storm. Approximately 50 ports have agreements with the Federal Government to provide ready access for national emergency purposes.

DEVELOPING PORTS AND HARBORS IS A SHARED RESPONSIBILITY

U.S. port development and maintenance is a shared responsibility of Federal, State, and local governments, with extensive private sector participation. Under this relationship, rooted in the U.S. Constitution, the Federal Government maintains harbor access channels, while individual ports construct and maintain the landside terminal facilities, dredge their own berths, and contribute to channel improvement cost-sharing programs. Relying in good faith on this long-standing partnership, local port authorities have spent over \$16.8 billion since World War II and expect to spend an additional \$1.3 billion annually to construct and maintain the landside facilities over the next 5 years.

In addition, local ports fund a share of Federal navigation improvement projects, either 35 percent or 60 percent depending on depth. Investment decisions made by the Federal Government, local ports and the private sector have been based on the expectation that the Federal Government will continue to fund maintenance dredging. These local investments have created the system of ports the Nation relies on to meet its national defense needs and growing international trade.

Although the Federal Government traditionally funded maintenance dredging of Federal navigation channels from General Treasury revenues, in 1986, Congress created the Harbor Maintenance Trust Fund to pay for a portion of channel maintenance dredging. Revenue for this trust fund is generated by assessing a fee (the "Harbor Maintenance Tax" or HMT) on the value of export, import and domestic cargo moving through the nation's deep draft ports. At the same time, local cost-sharing was instituted for funding new construction projects (widening and deepening) projects. By contrast, on the inland waterways, operations and maintenance costs are paid out of the General Treasury and new construction costs are funded, in part, by an inland waterways fuel tax.

The cost sharing enacted in 1986 passed Congress after a lengthy impasse over water resources development policy. Although the benefits are clearly national in scope, the HMT and cost-sharing reforms were instituted in an effort to recover the cost of maintenance dredging from navigation channel users. The Supreme Court ruled HMT is not a true user fee and is, thus, a tax applied unconstitutionally against exports. Exports are protected from taxation in the Constitution because of their importance to the health of the Nation.

WHY THE FEDERAL GOVERNMENT SHOULD FUND MAINTENANCE DREDGING FROM GENERAL TREASURY

Maintenance dredging should be funded from the General Treasury, as was the case before 1986. There is no user-fee system that can equitably raise revenues from the users of navigation channels in reasonable relation to the distribution of benefits to the Nation. Many options were considered in developing the ad valorem HMT funding mechanism for maintenance dredging. Unfortunately, the only option to survive the debates from 1981 to 1986, the HMT, was found unconstitutional by the Supreme Court. It does not appear that there are significant new or old options that would work better today.

The assessment of a tonnage fee on cargo or vessels would severely affect bulk commodities, such as grain or coal, which compete in international markets where pennies a ton can make or break a sale. These shipments, which are amongst our Nation's leading export products, now use the most cost-effective route—typically moving by barges down rivers to coastal harbors. Those harbors, in turn, tend to require significant maintenance dredging because of the river sediment. In general, dredging demands related to the shipping of these types of export products are greater than those related to import products.

Another alternative considered would have required local ports to raise their own funding for maintenance dredging. Such a change could pit U.S. ports against each other, the result of which could impact commerce and national security. The concept also alters the fundamental Federal role in maintaining the national navigation system. Like a tonnage tax, local funding, if passed on to port users, could increase transportation costs, pricing bulk commodities out of international markets either through increased charges at the currently utilized port(s) or by increasing inland transportation costs due to diversion from the inland waterway system.

Recognizing that these options could be injurious to the nation's trading position, and to individual ports, Congress in 1986 chose to enact a uniform ad valorem tax on cargo. By applying a uniform fee on all cargo moving through any port in the country, the tax did not affect the competitive position of any port. (This is true relative to U.S. ports, but ignores the fact that cargo has been diverted to Canadian ports to avoid paying the fee.) Congress intended to minimize the potential negative effect on export competitiveness, and minimize the diversion problem by setting the fee fairly low, at a level to collect 40 percent of the dredging costs. However, in the 1990 budget agreement, Congress tripled the fee, and a \$1.2 billion surplus has accumulated in the trust fund. Prior to the Supreme Court decision, the surplus had been expected to reach nearly \$2 billion by the end of fiscal 1999.

The HMT ultimately added hundreds of dollars to the cost of shipping a single container of high value cargo, and has caused traffic to be diverted to non-U.S. ports to avoid payment. The imposition of the HMT caused a rail-barge service on the Great Lakes to go out of business.

Other options for raising revenue from direct users of the navigation channels are not likely to produce sufficient funds. In addition, direct navigation users are already significantly taxed. A 1993 General Accounting Office study found that 12 Federal agencies levy 117 assessments on waterborne trade. In 1996, receipts from these fees were 154 percent of the level raised only 10 years earlier, making our exports more expensive and less competitive in international markets.

Customs revenues in fiscal year 1996 totaled \$22.3 billion, of which roughly 70 percent (or \$15.6 billion) is attributable to cargo moving through seaports. These funds, currently collected from users of navigation channels, are more than 31 times greater than the cost of maintenance dredging (approximately \$500 million). Expected increases in customs collections due to increased trade would likely be enough to pay for maintenance dredging.

As described above, benefits of safe and efficient trade provided by a nation's system of navigation channels are spread throughout the country. In addition, the benefits to the Nation resulting from national defense, commercial fishing, and recreational users are immeasurable; assessing fees on these users, however, was not part of the 1986 HMT funding mechanism. The burden for raising funds to pay for dredging should be spread across the whole nation because all our citizens benefit.

CONCLUSION

Since the first wooden vessels arrived on our shores, this nation has relied on and prospered because of its access to water and thereon to the rest of the world. Both economically and strategically, there are no greater national assets than our ports and Federal navigation channels—our water connections to the global marketplace and means of national defense.

Until 1986, the Federal Government fully funded the maintenance of our Nation's navigation channels, maintaining a partnership with State and local port authorities. Local port agencies have invested billions of dollars in landside terminals to develop the array of ports along the sea coasts, Great Lakes, Alaska, Hawaii, Puerto Rico, Guam and the U.S. Virgin Islands.

The HMT, instituted in 1986 to recover first 40 percent, then 100 percent (and more) of dredging maintenance costs, has been ruled unconstitutional by the U.S. Supreme Court. Based both on this decision and the rancorous debate during the 1980's, any alternative trade tax/user fee funding mechanism will have significant legal and political challenges to overcome. In addition, enormous national economic and national security benefits are threatened if the Federal Government does not continue to make these navigation channel investments.

With the United States' future role in the global economy at stake, it is critical that our Federal navigation channels be properly maintained. General Treasury funding of this maintenance should be resumed.

Mr. NAGLE. Finally, with regard to dredge material management, we have seen progress since the adoption of a national dredging policy to facilitate the timely and cost-effective dredging of our Nation's navigation channels. However, we still have more work to do. We still need to work toward consistent and expedited review of all dredging and disposal alternatives, separate from the 404 wetlands provision of the Clean Water Act, and for consideration of relative cost, risk and benefits of each alternative.

Additional changes should be considered to emphasize prevention of pollution that contaminate sediments, and to require full consideration of the use and value of the waters and channels to navigation in establishing appropriate criteria and standards.

Finally, AAPA wants to maximize the opportunities for the private sector, using Section 217 of WRDA 1996, to take a greater role in using dredge material in innovative uses, such as the creation of mitigation banks or the restoration of brownfield sites.

AAPA appreciates the efforts by this subcommittee to address some of these issues in the last Congress, and we look forward to working with you as you consider changes to the Clean Water Act and other environmental laws this Congress and beyond.

Mr. Chairman, we thank you for the opportunity to present the views of the U.S. public ports, and would be happy to answer any questions at the appropriate time.

Senator KEMPTHORNE. Mr. Nagle, thank you very much. We appreciate it.

Mr. Faber.

STATEMENT OF SCOTT C. FABER, DIRECTOR OF FLOODPLAIN PROGRAMS, AMERICAN RIVERS

Mr. FABER. Thank you, Mr. Chairman.

American Rivers strongly supports the Corps' growing environmental mission, including the environmental management program on the upper Mississippi River, the Section 1135 program, Section 206 program, the Challenge 21 initiative now proposed by the Corps. But this morning, I'd like to talk about another Army corps,

the Corps of Discovery led by Lewis and Clark, and the opportunities to revitalize the Nation's longest river, the Missouri River.

In 1804, Lewis and Clark bore witness to some of nature's greatest scenes. Their journals are filled with descriptions of the river valley and its inhabitants, ranging from herds of 10,000 buffalo to a flock of white pelicans more than 3 miles long. The Corps of Discovery recorded scores of plants, insects, fish, birds, and animals previously unknown to science, ranging from the least terns and prairie dogs to cutthroat trout.

The Missouri that Lewis and Clark saw featured thousands of islands and sand bars separated by two constantly shifting channels. Dense forests, shallow wetlands, and endless prairies bordered the river. The water flowed through thousands of smaller side channels that provided a wide variety of water depths and speeds.

Most of what Lewis and Clark saw, we cannot. Nearly 200 years after their famous voyage of discovery, Lewis and Clark would hardly recognize the Missouri River. Today, white pelicans are rarely seen on the Missouri, and the least tern is considered endangered by the Federal Government.

As we forced the rivers restless braided channels into a single, deeper canal, we eliminated nearly all the islands and sand bars and side channels that characterized the original river, the places fish and wildlife need to feed, reproduce and conserve energy. As these critical nurseries were destroyed, more than 30 of the species native to the Missouri River have been placed on Federal and State watch list. Many species have fallen to less than 10 percent of their historic population levels.

Fortunately, the Missouri River enhancement program proposed by Senator Bond represents a rare opportunity to repair the Missouri River. As we prepared to celebrate the 200th anniversary of Lewis and Clark's voyage of discovery, we have a once in a lifetime opportunity to boost recreation and tourism, revitalize riverfront communities, and restore natural places for river wildlife.

While we cannot restore the river Lewis and Clark knew, we can repair much of it. We can create a Missouri River that Lewis and Clark would recognize.

Unlike the existing Missouri River Fish and Wildlife mitigation program, which authorizes the Corps to reopen historic side channels and sloughs, S. 1399 authorizes the Corps to modify the rip-rap, wing dikes and other river training structures which line the river's banks to create shallow-water habitat in the river's main channel, places where fish can feed and conserve energy without interfering with commercial navigation or private property rights. That's why the legislation has not only been endorsed by American Rivers, but also by the Missouri Farm Bureau and by MARC 2000, a navigation industry trade association.

I see these efforts to repair the Missouri as a central piece of a growing trend, a national campaign to retrofit our working rivers. In the past, we asked the Corps of Engineers to make our rivers, like the Mississippi, the Missouri and the Columbia, reliable arteries for commerce. And they have succeeded.

But today we are asking the Corps to rise to a new challenge, to retrofit our working rivers so that they continue to be living rivers as well. As you know, the Corps is known as the Nation's prob-

lem solvers. But this problem, managing our rivers to meet the needs of nature and navigation, is perhaps the greatest problem they'll ever face.

It's not a problem for which there are easy answers. We need to look no further than the upper Mississippi River, where despite the Corps' best efforts, habitat for river wildlife continues to be lost faster than it can be replaced. Of course, far more than fish and wildlife are at stake. More than 12 million people annually recreate on and along the Mississippi, four times more than Yellowstone National Park, spending \$1.2 billion and supporting 18,000 jobs.

I urge you to give the Corps the resources they need by including S. 1399, the Missouri River Enhancement Program, in the Water Resources Development Act of 1998, expanding programs like the Upper Mississippi River Environmental Management Program, and continuing to support programs like the Challenge 21 Initiative proposed by the Corps. Thank you.

Senator WARNER [resuming the chair]. Thank you, Mr. Faber.

The chair wishes to apologize to the panel and to others, we have this bill on the floor and I'm one of the co-managers. But I'm back here now until we can complete the testimony of the panel.

Our colleague from New Jersey has asked if we might take Mayor Pringle next to accommodate the Senator from New Jersey. We're happy to do that.

Senator LAUTENBERG. Thanks very much, Mr. Chairman. Thanks for your kindness in permitting me to sit in on this subcommittee, of which I am not a member, but I have an active interest, as you know, in infrastructure, particularly as that infrastructure affects the environment and vice versa.

I'm delighted to see a friend, a distinguished mayor from New Jersey here, Mayor Ken Pringle. Each year I get to march in the St. Patrick's Day parade there, early in March. Sometimes the wind blows and the rain comes, but we stick it out, because this parade is one of the most popular in the whole State of New Jersey, and by no means is Belmar a major city in size. But it's a major city in its effect on what happens in our shore and resort industries.

So I'm pleased to welcome Mayor Pringle here. I look forward to his comments, Mr. Chairman, and hope that it will help us decide on the kind of legislation that we ought to be passing here.

Senator WARNER. Thank you.

STATEMENT OF KENNETH E. PRINGLE, MAYOR, BOROUGH OF BELMAR, NJ

Mayor Pringle. Thank you, Senator.

Good morning, Mr. Chairman and members of the committee. I want to thank you for having me here.

I've been the Mayor of the Borough of Belmar for 8 years, and I'm pleased to be here to bring my perspective as a small town mayor to the Federal shore protection program.

Belmar is only a one-square mile town. We have a year-round population of 5,700 residents. But on a typical Sunday afternoon in the summertime, up to 20,000 people will squeeze onto our beaches, which are only about a mile long and 150 yards wide at high tide, a little bit wider at low tide.

Senator WARNER. Councilwoman Strayhorn, just out of comparison, how many in Virginia Beach on a Sunday afternoon, same time period?

Ms. STRAYHORN. About 200,00.

Senator WARNER. About 200,000.

Senator LAUTENBERG. Well, it's easier to manage when you get that large a number.

Ms. STRAYHORN. We'll talk about that.

[Laughter.]

Senator WARNER. Thank you. I just wanted to get a little perspective.

Mayor Pringle. That's quite all right. We go by people per square yard in Belmar, the most densely populated State and the most densely populated beaches.

The Borough of Belmar has been an active partner with the State of New Jersey and the Corps of Engineers in this largest shore protection program in the United States. It now includes 11 municipalities and 21 miles of coastline in our area.

We're here today to urge continued support for that program, and to thank the committee for recognizing its importance and the need to invest in our shore communities.

I want to take a moment to note the longstanding contributions of Senator Lautenberg toward maintaining this investment. He's been a tireless champion of our coastal areas, and to environmental protection in our area. All along the shore are very thankful to him for that.

Belmar was an early convert to the cause of beach nourishment. We had an infamous nor'easter in 1992, in which the whole Jersey shore, Belmar and the towns around us, in particular, were battered by a combination of high winds, abnormally high tides and almost 3 days of pounding surf. Along the southern half mile of Belmar's coast, which had eroded away almost to nothing over the years preceding that storm, we had seven blocks of boardwalk and two pavilions that were completely destroyed, including three blocks of boardwalk that had been protected by a stone sea wall that ran parallel to the boardwalk.

Other towns on either side of us, like Spring Lake, Avalon and Bradley Beach, were devastated by the same storm, and lost their entire boardwalks and sustained enormous damage to upland improvements. The cost to the Federal Emergency Management Administration in terms of emergency funds following that storm for cleanup and repair was several million dollars.

Senator Lautenberg actually toured that site with us in the days immediately following the storm. And when we walked along our boardwalk, we found that Belmar's northern end had fared much better than our southern end. We realized that the only difference between our northern end and our southern end is that Belmar's northern beaches were much wider, due to the fact that the Shark River inlet just to the north of Belmar traps sand that drifts northward along the coast.

That wide beach had protected the northern end of Belmar and kept our boardwalks from suffering the same fate as our southern boardwalks. It became clear to us that the best defense that day

was not stone sea walls or jetties, but rather long, sloping beaches that could sustain the fury of a storm.

As a result of what we learned then, the residents of Belmar and other towns hailed the arrival of the Army Corps project when it arrived last summer with two large, ocean-going dredges that worked around the clock for the entire summer, pumping tens of millions of cubic yards of sand on our beaches, literally creating beaches right before our eyes.

Despite a series of nor'easters that hit us this past winter and spring, our beaches have survived very well in Belmar. We've had very little sand loss. More importantly, we were able for the first time to leave in place this past winter portable boardwalk sections that we installed after the nor'easter of 1992. This has been a boon to runners and walkers and bicyclists and mothers who push their children on our boardwalk every day.

The wider beach has also significantly expanded our ability to entertain tourists in our community. In fact, just this past weekend, we had a very large amateur volleyball tournament at the southern end of our beaches. That would have been entirely impossible before this year.

As other communities will attest, the Corps of Engineers projects have improved their resistance to these devastating storms. Based on our experience in Belmar over the past winter and what we seem to be experiencing in terms of greater frequency and severity of storm activity off our coast each winter, it's clear that projects like this will save millions of dollars of damages to our county in the coming years.

The Clinton administration's proposal for a change in the cost-sharing formula for periodic renourishment of beaches has us concerned. Belmar will be due in the next few years for its first periodic renourishment. Under the current proposal, non-Federal sponsors would pay 65 percent, the Federal share would drop to 35 percent.

There's no question that my community and communities like us are willing to pay our fair share of the cost of financing these types of projects. We certainly gain a benefit, and we recognize that. Our concern, Mr. Chairman, is that whether for initial construction or periodic renourishment, we need that share to be a fair burden on our communities. The funding levels should be based upon an assessment of projects around the country, and also on the ability of the local government to pay.

The Borough of Belmar does its part to maintain a stable, reliable source of local funding for our program. We in New Jersey, at least outside of Atlantic County, do not have statutory authority to charge a hotel or local sales tax. We rely instead upon a user fee, essentially, a beach badge to gain admission for residents and non-residents alike. By law, this is a fee that can be used only for the cost of operating and improving our beaches.

Our main concern today is that we keep these fees affordable to families who use our beaches. Belmar's 10 percent share of the most recent beach nourishment project, this is the original project, was \$612,899. We've had a great summer the last 2 years, and our revenues from those summers will enable us to make a cash down payment of \$300,000 toward that amount. We're borrowing the bal-

ance and will pay that off over the next few summers if weather permits.

But it is important that the future share that we have to pay be reasonable so that we're not forced to raise our beach badges to the point where they're beyond the reach of the types of families who regularly come to Belmar from New York, Pennsylvania, New Jersey, and of course, Virginia.

Shore communities around the country believe that beach nourishment projects are in the national interest, not just the State and local interest. They're our first vital defense to storms, and every dollar of that investment reduces the cost of emergency management funds that will have to be put forward in the event a storm causes damage. And that's not counting the untold losses in private investment, many of which are either uninsured, or uninsurable.

I'd also like the committee to keep in mind right now that the revenues from tourism in New Jersey don't go to local governments. We rely primarily on property taxes in New Jersey for our local revenues. Instead, tourism revenues go to State and Federal treasuries.

The Jersey shore is an enormous economic engine. In 1996, travel and tourism in New Jersey's five coastal counties generated over \$12 billion and was responsible for 161,000 tourism-related jobs. The total payroll is \$3 billion. We think this is an industry that is a worthwhile Federal investment.

I want to thank you for giving me the opportunity to share my views here today, and I'd be pleased to answer any questions you may have.

Senator WARNER. Thank you, Mayor Pringle.

We would like to welcome Mr. Grover Fugate, who is the executive director of the State of Rhode Island Coastal Resources Management Council. Mr. Fugate, welcome to the committee.

**STATEMENT OF GROVER FUGATE, EXECUTIVE DIRECTOR,
RHODE ISLAND COASTAL RESOURCES COMMITTEE MAN-
AGEMENT COUNCIL**

Mr. FUGATE. Thank you. First of all, I'd like to thank the committee for having me here this morning.

Rhode Island, although the smallest State in the Nation, has a long coastline and is one of the second densely populated States, after New Jersey, in the United States. Rhode Island's tourism generates about a little over \$2 billion, about \$2.2 billion to the economy, and is the largest segment of our economy in the State.

As a coastal manager, we're very concerned about managing all aspects of beaches, including looking at beach nourishment as one of the tools that we use to reduce damage, but also as a management tool for other ends.

I'd just like to go through a few overheads here, and I apologize in advance, because some of them are kind of light. But I want to illustrate a few points here regarding the Rhode Island case. What this slide shows, although it's outdated somewhat, is the tracks of major hurricanes over the last, say, 70 years. As you can see, most of these hurricanes track in a north-south fashion. In Rhode Island, we have the lucky advantage of turning the corner, so as hurri-

canes track in that north-south fashion, we turn the corner and we take the full brunt of the storm.

Again, as you can see, most of the tracks showing on this chart show that they've been tracking through the Hartford, CT area. That is a particularly damaging path for us, because we catch the brunt of the forward movement of the hurricanes, plus the wind factors.

Our beaches, because of this and several other factors, are extremely susceptible. Some of the other factors include the fact that we are a sediment-starved system. We have no major rivers pumping sediment into the coastal area in Rhode Island. The only source of sediment are old glacial deposits usually in headlands or beaches themselves and some small offshore deposits.

In addition, our beaches along the south shore are typically barrier spits. They are very low in profile compared to other barriers in the United States, and very narrow. All those factors make the coastline in Rhode Island extremely susceptible to both hurricane and nor'easter damage.

This next slide is a chart showing transects taken along the shoreline of the State, and then projecting whether they're either erosional or accretional. As you can see the scale off to the side on the right hand side is in feet. Many of those areas of shoreline are approaching 3 feet of erosion per year.

If you look at the line here as being zero, if you're on this side of the line, it's accretional, if you're on this side of the line, it's erosional. Overall, our shore is an erosional or transgressive shoreline. It is moving back in response to both storms and erosion.

Senator BAUCUS. How much of it is due to the global warming or—the Atlantic coast is declining, isn't it, anyway, in relation to the Pacific?

Mr. FUGATE. The Atlantic coast there, particularly within the New England area, there's a theory called isostatic rebound theory, which means that after the last glaciation, after the weight of the ice was lifted, a lot of the New England area was still lifting relative to sea level rise. Unfortunately, in Rhode Island, we're not lifting fast enough, erosion is catching up with us and our beaches are rolling over. There's no doubt that sea level rise is playing a factor.

Historically, within Rhode Island over the last 50 years, we have had about six inches, just in historic sea level rise, not even counting anticipated accelerated sea level rise.

Senator BAUCUS. Thank you.

Mr. FUGATE. One other factor that I'd like to point out, this is a picture just showing the sediment movement along the south shore of Rhode Island. Back in the 1950's, the early 1950's, there were a series of hardened breachways that were put in on the coastal ponds, which completely altered the ecosystem. As you can see, they allow for a large influx of sediment into the coastal ponds. They're acting like huge vacuum cleaners, actually taking sediment out of the beach systems.

A project that we're engaged with the Army Corps right now, thanks to Senator Chafee, is a project to take a holistic approach to looking at management of these ponds, and with a thought to reverse some of the impacts that we have caused in the 1950's.

What we're hoping to do is dredge those flood tidal deltas, put the material on the beach, restore coastal habitats, restore grass, nourish the beaches for tourism, restore navigation in these coastal ponds which have been lost through the sedimentation and completely rehabilitate these areas and try to maintain them on a sustainable system.

I guess my main remark today, in looking at beach nourishment, is to remind, as you're all aware, that I think we've interfered in the natural system through our past activities, to the extent we can't walk away any more. We have to actively manage these areas. And beach nourishment is going to still continue to play a very important tool in trying to manage these areas, so that we can sustain these benefits.

Thank you.

Senator WARNER. Thank you.

Mr. Higgins.

STATEMENT OF STEPHEN H. HIGGINS, BEACH EROSION ADMINISTRATOR, BROWARD COUNTY DEPARTMENT OF NATURAL RESOURCE PROTECTION

Mr. HIGGINS. Thank you, Mr. Chairman, distinguished members of the subcommittee.

Thank you for the opportunity to appear before you today to testify on ways to strengthen and make more cost effective the Nation's shore and beach protection program. It's my hope that my testimony and that of the others which appear before you will help to illustrate the overall importance of beaches to local, State, and national economic development, and the need to continue an active Federal presence in shore protection.

I wear several hats today in that I represent a local government, Broward County, in southeast Florida. I also represent the Florida Shore and Beach Preservation Association, which is a statewide league of counties and cities with a common interest in beach erosion. And the American Coastal Coalition, which is the national coastal advocacy group.

The hats I'm wearing are made of a common material, however, the effort to spread the word about the value of America's beaches, and the need to continue what has been a successful and beneficial partnership among local interests, States and the Federal Government in protecting a vital national asset.

Mr. Chairman, beaches are a fundamental and critical piece of economic environmental infrastructure. They are economic engines which rival major commercial ports in revenue and job generation, and traditional flood control works in protection of private and public property.

Having grown up in southeast Florida, I witnessed the chronic and widespread economic decay which resulted from the loss of sandy shoreline at Miami Beach in the 1960's, and watched the re-birth of that area after the Corps of Engineers assisted in the restoration and maintenance of that beach.

In Broward County, my home, federally-assisted shore protection efforts have ensured the sustainability of infrastructure which provides \$800 million in annual regional economic input, creates and sustains 26,000 jobs, protects over \$4 billion in upland property,

and provides upwards of \$100 million in annual local, State, and Federal taxes. This is in just one moderate-size county with 24 miles of beach.

A recent study by the Travel Industry Association of America concluded that almost 80 percent of the nearly \$500 billion in annual tourism expenditures occurs in States with coastal congressional districts, and that those coastal districts alone generate over \$185 billion per year in tourism expenditures, while sustaining 3 million jobs with a payroll of almost \$50 billion annually.

Bearing in mind these figures, Broward County has in the planning stages a major shore protection project which will keep our beaches healthy well into the next century. The project involves traditional beach nourishment using offshore sand sources, and will restore and nourish more than half the county shoreline. In order to increase the durability of the project, to reduce the ambient erosion rate, the county also proposes to construct some highly engineered sand holding structures in the most erosive area, which happens to be just downstream of the Federal navigation project at Port Everglades and to introduce sand bypassing at Port Everglades.

The estimated cost of all this work, including the sand bypassing, is about \$30 million. The calculated Federal share of the beach nourishment and structures components, based on historical Federal participation and on Corps of Engineers approved studies, is about \$17 million, which Broward County has requested several years running now in appropriations bills.

For \$17 million, the Federal Government helps to ensure the existence of an item of infrastructure which produces the better part of a billion dollars in annual economic activity, protects from storm damage and subsequent Federal rehabilitation assistance billions of dollars in public and private property, and produces tens of millions of dollars in annual Federal tax revenue. If a healthy local and regional economy is at all contributive to the vitality of the national economy, as intuition would suggest, Broward County's project would appear to be a cost-effective investment for the Federal Government.

Having made these comments, Mr. Chairman, we as coastal interests also acknowledge and understand the tightening budgetary constraints under which all levels of Government must operate. A water resources development type, such as beach erosion control, which requires expensive and sometimes frequent maintenance, is a budgetary concern.

For this reason, it's incumbent on all of us to try to find better, more efficient and more cost-effective ways to maintain our beaches. A series of proposals has been put forth by the American Coastal Coalition for inclusion in the Water Resources Development Act of 1998, which will help accomplish these objectives, and they are as follows.

We urge Congress to mandate that shore protection is one of the Corps' primary missions. Currently, the Corps' shoreline protection role is merely an outgrowth of its storm protection, flood control and environmental restoration missions. It should not be a Corps stepchild, and in view of the extraordinarily positive cost-benefit ratios attributable to beach replenishment projects, it's fiscally im-

provident to sacrifice shore protection as a Federal mission based on short-term budgetary savings.

We call on Congress to authorize a new national shoreline study to assess the regional and national economic impact of beaches and to take a complete inventory of the condition of the Nation's sandy beaches. The last inventory was taken in the late 1960's, and there has never been a national assessment of the far-ranging economic impact of beaches. Without this data, it is impossible for Congress to consider major changes in national shoreline protection policy, or to budget for the Federal share of beach repair and maintenance.

The Federal Government has a statutory and moral responsibility to mitigate the damage that it's caused beaches by dredging and stabilizing port and inlet channels. There are too many examples of the Government's failure to recognize and respond to that responsibility. Language should be included in WRDA 1998 which ensures that this mitigation responsibility can be used as the basis for Federal participation in a shore protection project which is needed due to Federal actions.

One immediate change in policy that we strongly recommend would direct the Corps to place beach quality sand dredged from channels on adjacent beaches, regardless of whether it is the so-called least cost option. On many occasions, dredge material is deposited in the ocean, because placement on a nearby beach is not deemed the least cost option. Subsequently, taxpayers pay for pumping sand back onto the beach as part of a shore protection project, thus the least cost option may ultimately result in a higher cost to taxpayers.

We support statutory language in WRDA 1998 that directs beach quality sand dredged from a navigation project to be placed on nearby public beaches, unless such disposal is not economically and environmentally sound.

In some areas of the country, near-shore sources of sand for beach nourishment are becoming scarce. Recognizing this fact, Congress adopted legislation making it possible for the Minerals Management Service to enter into agreements with the Federal Government as well as with non-Federal sponsors of beach nourishment projects, to acquire sand from the outer continental shelf.

While Congress gave MMS the discretion to determine if it should charge non-Federal sponsors for this sand, the MMS has determined that as a matter of policy, it will impose a charge. This will increase the costs to States and local governments unnecessarily. Therefore, we support statutory language which removes from MMS the discretion to charge any fee for OCS sand to a non-Federal sponsor of a federally authorized shore protection project.

We realize that while this issue is not technically within the jurisdiction of this committee, we believe the jurisdictional issues can be overcome.

The WRDA bill introduced by the Administration included language which altered the cost-sharing formula for periodic beach nourishment, making the non-Federal interest responsible for 65 percent of the cost. While this may be seen as a gesture indicating a willingness to continue participating in shore protection and beach protection, it appears not to be based on any real analyses

of who benefits from the projects, and was not accompanied by new project authorizations.

It's likely that the current cost-sharing formula can be restructured to reflect more accurately the true beneficiaries of beach projects. However, to be useful, such a restructuring must be based on engineering, science and economics, and must be accompanied by an intelligent program of authorizations of shore protection projects and studies.

We recommend the establishment of a national shoreline and shore erosion data bank. Several Federal agencies currently collect or have the ability to collect data that is vital to the management of our coastlines. Data are also collected by States, local governments, and academic institutions.

To facilitate the long-term management of our shorelines, all interests should have access to all the useful data they need to make responsible policy determinations. The authorization of a national shoreline and shore erosion data bank in WRDA 1998 and the funding of that bank in the Energy and Water Development appropriations bill for fiscal year 1999 would be a significant step for pulling together and augmenting the available data, and establishing a mechanism for its maintenance and dissemination.

The American Coastal Coalition calls on this subcommittee to insist, as part of WRDA 1998, that the White House Office of Management and Budget and the Army Corps of Engineers implement the letter and the spirit of the Shore Protection Act, as incorporated in section 227 of the 1996 WRDA, and the vast body of other Federal laws which clearly establish a Federal role and responsibility to participate in the repair and maintenance of sandy beaches.

Finally, we urge this subcommittee to energetically support the research efforts that have placed America at the forefront of coastal engineering worldwide. Both the Corps of Engineers and the academic community have, with the help of the Federal Government, contributed to a dramatic improvement in the body of knowledge about coastal dynamics and the coastal systems, knowledge which has begun to result in lower project costs and increased project effectiveness.

Since these are the very attributes that we all seek, please provide the necessary authorization to sustain this vital research.

Mr. Chairman, we believe that beaches are fundamental to the economy at all levels, that there is an emerging body of knowledge and literature that so indicates. We believe that it is proper and appropriate that the Federal Government participate in partnership to restore and maintain the Nation's beaches.

We know there are ways to reduce the long-term cost of beach erosion control projects, methods such as reimbursable projects, combining beach erosion control with navigation projects, regionalizing shore protection efforts, implementing innovative erosion reduction features, and allowing the Corps the flexibility to carry over allocated funds to subsequent fiscal years. These measures would increase project effectiveness and reduce long-term costs.

Mr. Chairman, thank you very much for the opportunity to address the subcommittee today, and to lay before you some of the most pressing shore protection policies.

Senator WARNER. Mr. Higgins, we thank you for making the, comparatively speaking, long journey from Florida, a State that is very much in our hearts and thoughts these days. In my lifetime, I cannot recall a single geographic area of this country subject to so many ill fortunes and ill winds of mother nature. I hope in due course this thing can be stopped, and you all can return to your way of life. I wish you luck. Thank you for making the trip.

Mr. HIGGINS. Thank you, Mr. Chairman.

Senator WARNER. Now, from my State, Ms. Strayhorn, we're delighted, thank you for your patience. But I thought we'd wrap up with you.

**STATEMENT OF LOUISA M. STRAYHORN, CITY
COUNCILWOMAN, VIRGINIA BEACH, VA**

Ms. STRAYHORN. Well, I appreciate that. And it's very good to see you again, Chairman Warner.

Senator WARNER. Nice to see you.

Ms. STRAYHORN. I appreciate the opportunity to testify before the committee about the city's past and ongoing work with the U.S. Army Corps of Engineers, and that city, of course, is Virginia Beach, about our numerous beach and navigation projects, and to request serious reconsideration of Federal beach replenishment cost-sharing.

As you well know, Chairman Warner, Virginia Beach is a beautiful resort city located only a few hours' drive from this Nation's capital, and it is the largest city in the Commonwealth of Virginia. We're hoping you'll take your vacation fairly soon.

Having served on the city council for the past 4 years, I know first-hand how the well-being of our beaches is crucial to the city's economy. The city has over 6 miles of commercial beachfront, which is critical to the livelihood of many Virginia Beach residents and the city's financial health, since tourism is our largest employer.

Over 2 million out-of-town visitors arrived in Virginia Beach last year. These visitors spent approximately \$500 million in the city, and directly created about 11,000 jobs. In addition to our visitors, the second biggest employer for Virginia Beach is the U.S. Navy, at the U.S. Naval Air Station, Oceana supports the largest naval complex in the free world.

After three rounds of base realignment and closure, expansion of this megaport continues with an increase of as many as 6,000 sailors and family members in the next year, with the F/A 18 transfer from Cecil Field to Oceana. And again, my city wants me to say thank you for your tenacious efforts, because we know it would not have happened without it.

Our city's economic health directly impacts the quality of life enjoyed by the thousands of naval personnel in Virginia Beach. Therefore, because of these many varying factors which constitute the city, the size of our population over 400,000, our location on the Atlantic Ocean and Chesapeake Bay, and our dependence on tourism as the largest segment of our economy, the Virginia Beach City Council has a particular interest and directive to protect our beaches and navigable waterways.

As far as protection is concerned, sandy beaches are an integral part of the city's coastal infrastructure and provide the first line of

defense against storm waves, and form the basis for our continued economic vitality.

For the past 25 years, the city, in conjunction with the Corps, has been working to finish the region's highest priority, the Virginia Beach Erosion Control and Hurricane Protection Project. This project protects and enhances six miles of commercial and residential beach front consisting of over \$1 billion in flood insured development against a direct hit from a hurricane. The project protects hundreds of millions of dollars of city infrastructure, our tourism industry, and more than a thousand residential and commercial properties along the shore.

Study on this program as a Federal project began in the 1960's, and after long anticipation, the project was authorized by Congress for the construction in the 1986 Water Resources Development Act. Actual construction began in fiscal year 1996, which I know you are well aware of. And depending on appropriations levels, construction will be completed in the year 2001.

This will afford us a vast improvement in protection from storm events. The area protected by the project will be saved from average annual flooding damages estimated at over \$13 million per year during the project's 50-year life.

An issue facing this committee, as you prepare the WRDA, is the Administration's proposed revision in cost-sharing for beach replenishment. Once construction of this beach erosion control and hurricane protection project is complete, the authorization includes the periodic renourishment of the project beach for a 50-year period. The very basis for the project's performance estimates is founded in the premise that the beach and seawall will act together to provide the protection benefits the beach must maintain.

Although not specifically addressed in the draft language supplied by the Administration, the application of a revised cost sharing must not affect ongoing or existing projects. We have based our participation in this project and agreed to maintain the constructed project with the belief that the cost-sharing formulation in the 1986 Water Resources Development Act would remain at the authorized level of 65 percent Federal and 35 percent local. The Administration has proposed to change the beach replenishment portion of these projects to 35 percent Federal and 65 percent local.

While the merits of revision could be argued, any application of new cost sharing levels must be limited to new authorities. And we urge you to specifically address this issue as you move forward with the WRDA, because we feel that it would be otherwise unfair. If the Administration's new cost-sharing formula were applied to our existing project, the cost to the city of Virginia Beach over and above the amount specified in our project cooperation agreement would escalate by more than \$40 million.

As a member of the city council, when the council authorized our city manager to enter into the agreement with the Corps of Engineers, I can tell you, first-hand, that the citizens of Virginia Beach and its council would feel betrayed if the rules were changed in the middle of the project and a cost-sharing increase, as a result, by over \$40 million would indeed be a hardship to our citizens.

We would urge you to reject the Administration's proposal. We must consider both flood damage reduction benefits and the vital

economic contributions that the Nation's beach tourism industry generates.

In conclusion, I would like to highlight the following points and recommendations to the committee. First, we urge the committee to clarify in its bill that any revisions to the cost-sharing formulation for beach replenishment only apply to projects not yet authorized or constructed. We would also urge the committee to review all the merits and benefits of the Federal beach replenishment program and prevent the Administration's cost-sharing formula proposal from being enacted.

Finally, in our view, the Department of the Interior has overstepped its authority by assessing fees to local governments for mining beach replenishment sand in the furtherance of projects authorized by this committee. We have detailed this problem in my written testimony, and I will not go into it in detail here. However, we do urge you to consider language for the WRDA that will prohibit the Interior Department from applying its authority under the Outer Continental Shelf Lands Act for any project authorized by the WRDA.

The city of Virginia Beach is the only locality in the country to have ever been compelled to pay the mining fee. Directive language for reimbursement of the \$198,000 mining fee that the city has been forced to pay would be greatly appreciated.

Chairman Warner, I want to thank you again for the opportunity to speak with you today on these issues of extreme importance to the over 400,000 citizens of Virginia Beach. The work of this committee has had a very positive effect on our community through nearly 50 years of continuous beach replenishment, and now with the construction of the new beach erosion control and hurricane protection project at our resort area.

To you, Chairman Warner, we especially appreciate all that you have done for Virginia and the Nation, and hope that you will be able to continue to support us with these requests. Thank you.

Senator WARNER. Thank you very much.

Listening to your excellent statement evokes some of the happiest memories of a lifetime—visiting the beach. I will definitely be back at the earliest opportunity.

I must say, we have been successful in our funding with the projects to date.

Now, what I'd like to do is pose two brief questions and we'll just go from Mr. Nagle straight down. And if you could shorten your answers; they're simple questions. I would like to get a record of your responses.

Would you be supportive of cost-sharing changes if the Administration were to give assurance it would budget for and submit for the shore protection projects? Well, that's right, you wouldn't have a comment on that, so thank you. Mr. Faber.

Mr. FABER. Well, as much as I enjoy Virginia Beach, my employer won't allow me to go that close. I'd have to leave rivers to get to the ocean.

Senator WARNER. Well, we can't do that. Ms. Strayhorn, what do you believe? I'm just trying to get some sense of where I've got some moving around.

Ms. STRAYHORN. The 65 percent that we're talking about here is a really important point to us. We feel that the Nation as a whole benefits from the economy that is engendered by this, our tourism industry, and the tourism industry all over the country. We just feel that that is a fair distribution of that, and that 65 percent needs to remain.

Senator WARNER. Mr. Higgins.

Mr. HIGGINS. Mr. Chairman, speaking with my local hat on, we've always liked the 1986 formula, because it was really a good deal for the locals and the State.

Looking at the larger picture, perhaps, with the budgetary constraints, it may be appropriate to alter those cost-sharing proportions. I would urge you, though, to base them on some factual representation of who the true beneficiaries of the project are, rather than a random assignment of costs.

Hopefully, accompanied by new projects, that would allow a smooth transition into a new formula, rather than be retroactive.

Senator WARNER. Sure. Mr. Pringle.

Mayor PRINGLE. Mr. Chairman, the 65 percent seems to be a fair share for the Government. In our case, we draw people from other States. To impose the lion's share on State and local government seems to be unfair.

I might suggest that part of the allocation should be based upon the extent to which an area benefits the public. If it's an area of beach on which primarily private homes that are being protected, then perhaps the local share should be greater there. But where the locale opens up its beaches and makes them available to the public, then I think, in fact, the public, in this case the Federal Government, ought to pick up the greater share of that.

Senator WARNER. Mr. Fugate.

Mr. FUGATE. Yes, Mr. Chairman, I would have to agree, I think, with the other panel members, in that we would like to see the formula stay the way it is. We realize in tight budgetary times there may have to be some adjustments. But I think a phase-in period for those adjustments would be much more rational than a quick shift in those, particularly given the dollars that are involved, it is often very difficult for State or local governments to make those types of shifts. They very often have to abandon those projects.

The resultant damage that will come from storms will probably dip into the Federal coffers anyhow in other areas.

Mr. FABER. Mr. Chairman, could I add just a couple of quick thoughts on cost-sharing in general.

Senator WARNER. Sure.

Mr. FABER. It's obviously an issue that's been before this committee in the past few water resources development bills. I think the reason the Administration and certain conservation groups support cost-sharing in principle is two-fold. One is, and certainly I think everyone can appreciate this, it helps us to spread Corps resources further.

Right now, there is simply not enough money to go around, satisfy all the demands that are being placed on the Corps of Engineers, whether it's from beach communities or riverside communities or navigation industry or flood control interests. Cost-sharing

simply allows the Corps to do its job better and to meet more of the needs of the Nation.

There's also another important principle which was captured in the flood plain review committee's report, "Sharing the Challenge," a few years ago, after the flood of 1993. That by requiring local government to share the cost of these disasters, we create the incentives necessary to discourage unwise development, to discourage development in very flood-prone areas.

The one mistake we have made as a Nation, really beginning around the turn of the century is, by assuming too much responsibility for these disasters, and in that way, encouraging development in places, perhaps, where it should not have occurred. So the right mix of cost-sharing is obviously a decision that you should make. But the principle is important, and that is that we need to give local governments the incentives to discourage development in very flood-prone areas.

Senator WARNER. Let me start with you on another issue, and that is the current length of each renourishment contract is 50 years. Seems to be sort of a length of time to tie up Federal resources, and seems to inhibit the construction of new projects.

Would it not be more reasonable to limit contracts to 25 years, which would still do the beach protection, but in my judgment it would free up some funds for other areas?

Mr. FABER. I think the requirement of the 50-year contract reflects the Corps' general desire to make sure that these projects have a long project life, and not to simply go in, build something and have to return a few years later. So it may make sense to have a 20-year or 25-year contract.

I think perhaps the bigger issue is how to prioritize the problems facing flood-prone communities nationally. Every community that's facing these sorts of problems sees its problem as the Nation's No. 1 priority. And I can appreciate that.

But fortunately, we do know where the Nation's most repetitively flood-prone structures are. It seems to me it makes sense to marshal our resources to attack those problems, rather than doing it in something of a piecemeal fashion, which is unfortunately what we've done to date.

Senator WARNER. I'm going to stick to the 50 versus 25.

Ms. Strayhorn.

Ms. STRAYHORN. On the local level, we realize we cannot possibly have as long a term as we would like, but something different could be considered. I don't think we would have a problem with the issue being reconsidered.

However, of course, it would have to be for any projects that were not under way at the present time.

Senator WARNER. You want to grandfather them all in?

Ms. STRAYHORN. Absolutely. Because when people plan, when you have put in already 50 years for something, and we've planned as a community and budgeted for it, we don't have much choice when someone comes up and says, well, we're going to change it. What do we do for that when we have other mandated expenses we need to take care of?

Senator WARNER. Well, I have to tell my good friends from Virginia Beach, the little voice is telling me I won't be here for 50 years. So somebody will have to pick up where I drop off, then.

Ms. STRAYHORN. I don't think you should make that statement. You don't know.

[Laughter.]

Senator WARNER. Even 50-plus mine would beat Strom Thurmond's 95.

[Laughter.]

Senator WARNER. Mr. Higgins.

Mr. HIGGINS. Mr. Chairman, I think the 50-year project life is an artifact of the way all public projects are approached in terms of an economic analysis. It may not be appropriate from an engineering standpoint for beach erosion control projects, if only because they vary in durability so much. Some projects require maintenance every 15 years, some projects require much more frequent maintenance, therefore increasing the long-term costs.

I don't know how much money shortening the project life to 25 years would save, when you consider the discounting of the dollar. I do know that for some projects, a 25-year life would probably mean just as much of an investment, because of the need to re-nourish frequently, as other projects would in 50 years. Therefore, it's difficult to apply a blanket economic analysis for all these variability of projects, but I don't know whether it's possible to look at each project and apply a custom-made economic analysis.

I think in the interest of maintaining a balanced budget we should look at all the options.

Senator WARNER. We're trying to break the logjam and move around. Mr. Pringle, do you have any views on it?

Mayor Pringle. Mr. Chairman, I think that's a reasonable compromise.

Senator WARNER. Thank you.

Mr. Fugate.

Mr. FUGATE. Mr. Chairman, the only thing I'd have to say to that is that whatever project life is chosen, whether it's 10, 20, 50 years, I would suggest that most of us are going to be facing the problems that we have right now at the end of those project lives, unless other programs are brought in place to adjust patterns of development and give incentives for structures to be relocated out of these areas, and other management techniques put in place to manage these serious problems.

Senator WARNER. I have another question. You spoke earlier about the feasibility study with the Army Corps on the Rhode Island south coast. Do you know yet, after the feasibility is done, what the overall cost will be for the projects there?

Mr. FUGATE. We're estimating right now, looking at the projects that are in stream, we anticipate we'll probably be about \$5 million per pond, the coastal lagoon system that we're looking at, and we have three major coastal lagoon systems that would be involved.

Senator WARNER. Ladies and gentlemen, we've had, I think, an excellent hearing. If necessary, we will try and accord some opportunity for other perspectives on this very important piece of legislation. But she's going to be a tough one. As we say in the Navy, stand by for ram, we've got to move it.

Thank you.

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

[Additional statements submitted for the record follow:]

STATEMENT OF HON. BYRON L. DORGAN, U.S. SENATOR FROM THE
STATE OF NORTH DAKOTA

Just over a year ago Grand Forks, North Dakota; Grafton, North Dakota; East Grand Forks, Minnesota; and other communities in the Red River Valley were devastated by flooding of historic proportions. Following a dozen blizzards which dumped 3 years of snow in 3 months time, the Red River swelled to a height of 54 feet, 26 feet above flood stage. Estimates are that the flooding, classified as a 500-year event, caused damages in excess of \$1 billion. Thousands of homes and businesses were lost. Tens of thousands of residents were displaced. Simply put, it was a disaster bigger than anyone could imagine.

Grand Forks, ND, and East Grand Forks, MN

Just over a year ago, Grand Forks and East Grand Forks were virtual ghost towns. Water was waist-deep in the streets. Eleven buildings in downtown Grand Forks stood as burned-out hulks. But, with unprecedented Federal disaster assistance, the recovery process was beginning even as the flood waters were receding, and in the past year, incredible things have happened. The downtown city areas have begun to be revitalized through grants, loans and construction. The existing levee system has been repaired and readied for short-term flood protection. Nearly 500 homes have been purchased in the flood plain. These areas will become permanent greenways while new, permanent dikes will protect residential areas beyond the floodway.

Until the cities are protected from future flooding, however, the recovery process will not be complete. Working with the Army Corps of Engineers, the two cities have designed a project to provide permanent flood protection. In February, both city councils voted in favor of a plan that would include levees, floodwalls, and road raises. The Corps has determined that the \$281.8 million plan has a benefit/cost ratio of 1.13 and is the Net Economic Development plan. Cost sharing between the Federal and State/local governments is 50/50.

Support for the project is widespread. The project was included as one of five in the Administration's Water Resources Development Act 1998 proposal. The project also has the support of State and local governments in both North Dakota and Minnesota; from North Dakota Governor Schafer, who has promised to provide \$52 million in State funds; and from the North Dakota congressional Delegation as well as from Senators Wellstone and Grams, and Congressman Peterson in Minnesota. This project is the key to rebuilding these communities. I urge the committee's continued support for this vital effort.

Grafton, ND

The City of Grafton was similarly devastated by last year's flooding. The realities of the disaster forced the city to reconsider a past decision not to seek a flood control project along the Park River. The proposed project was authorized initially in 1976, but deauthorized in 1992. To prevent a recurrence of last year's disaster, the city now seeks reauthorization of the project.

The proposed bypass channel and tieback levees would cost about \$27.3 million. About \$9.6 million of the total cost would come from non-Federal sources. The Administration has stated that it would not object to reauthorization of the project as long as the environmental and economic suitability evaluations are updated and reconfirmed. The Corps is currently in the process of conducting this update. I understand that the Corps' preliminary benefit/cost assessment is positive because no new construction has occurred in the floodway, while many more homes and businesses would be protected than in 1976.

I urge the committee to consider supporting this project that is so critical to the future of the City of Grafton and, for the record, I would like to submit a statement from the mayor of Grafton in support of this vital project.

STATEMENT OF FRED M. STARK, MAYOR, CITY OF GRAFTON, ND

The City of Grafton is located in the Northeastern corner of North Dakota; 40 miles from the Canadian border and 10 miles from the Minnesota border. The City

was established on the banks of the Park River which flows to the Red River just 10 miles to the east. Recurrent flooding along the South Branch and the main stem Park River causes significant flood problems at Grafton. The largest flood of record, which occurred in 1950, inundated almost the entire city. More recent floods occurred in 1962, 1965, 1969, 1979 and 1997.

90–95 percent of the land within the City limits and area surrounding the City is located in the flood plain. A diversion plan as proposed by the Corps of Engineers would secure the community from the annual impending spring flood, permitting flood preparation and prevention efforts and finances to be refocused toward developing the community. A diversion project would extend the life of infrastructure in the community as frequent flooding is very wearing on sewers, streets and other utilities.

A diversion project will make land available outside of the flood plain which will be less costly to develop because buildings will not need flood-proofing and less costly to the homeowner, as flood insurance will not be required.

Thank you for your support.

STATEMENT OF HON. KENT CONRAD, U.S. SENATOR FROM THE
STATE OF NORTH DAKOTA

Mr. Chairman, Senator Baucus, and members of the committee, thank you for giving me the opportunity to speak with you today. I am here today to urge you to authorize the flood control projects for Grand Forks, ND—East Grand Forks, MN, and for Grafton, ND, in the 1998 Water Resources Development Act this committee will develop in the coming weeks. These projects are supported by the local communities and by the bipartisan Members of Congress from North Dakota and Minnesota that represent these cities.

As you recall, in April of last year, the Red River Valley in North Dakota and Minnesota faced the most significant flooding in recorded history. However, the flood of 1997 really began months before, in 1996 and early 1997, as blizzard after blizzard blanketed the region with record snowfalls. Just as meteorologists name hurricanes throughout the hurricane season, weather forecasters in the Northern Great Plains began naming the blizzards that seemed to hit on almost a weekly basis. The last was blizzard “Hannah,” on the weekend of April 5–6.

Hannah was the strongest winter storm in 50 years to hit the Valley, bringing tremendous destruction. The blizzard hit just as the residents of the Valley were preparing for what was already expected to be significant flooding. In fact, people were sandbagging as the blizzard began. Hannah dumped two feet of snow in areas, bringing the total to 10 feet for the season more than three feet above the previous record snowfall. Hannah began with a terrible ice storm that downed power lines leaving more than 80,000 customers without power in sub-zero weather. Some were without electricity for more than a week in these conditions.

And then the snow began to melt.

The Red River of the North swelled to 54.11 feet at Grand Forks—26 feet above flood-stage. The cities up and down the Valley worked feverishly day and night with the Army Corps of Engineers to prepare for the flood, raising and raising the levees to try to protect their cities. Many were successful. But the flooding in the northern end of the Valley was beyond the best efforts of the cities of Grand Forks and East Grand Forks. They were devastated by the historic flood as nearly the entire community was evacuated. The impact the flood had on these communities was unprecedented with tens of thousands of residents displaced, thousands of homes and businesses lost, and billions of dollars in damages. Simply put, it was a disaster of cataclysmic proportions.

During this time of incredible need, the Federal Government marshaled an extraordinary response to this disaster. President Clinton, Vice President Gore, FEMA Director James Lee Witt, several members of the Cabinet, and many Members of Congress personally visited the area to see the destruction first-hand and to offer words of hope to the communities. The Federal disaster aid provided by this Congress has made an enormous difference in the lives and the future of the residents of the area.

However, this recovery process will not be complete until Grand Forks and East Grand Forks can be protected from a repeat of last year's flooding. Throughout the last year, these two communities have worked closely with the Army Corps of Engineers in an effort to design a permanent flood protection project. The result of this partnership is a project which will include construction of a series of setback levees and floodwall. The levees and floodwall will provide a level of protection equivalent that necessary to protect against the flood of 1997.

According to the Corps figures, the total cost of this flood protection project is \$300.6 million. The project's Benefit/Cost ratio of 1.13 was determined by the Corps to be the plan that provides the maximum net economic benefits. In accordance with the cost-sharing requirements in the 1986 WRDA, the local communities will pay for 50 percent of the total cost of this project.

As you know, the Administration included this project in the proposal forwarded to Congress earlier this year and introduced by request as S. 2131. It is imperative that this project come to fruition. Each and every citizen of Grand Forks and East Grand Forks needs the peace of mind that a permanent flood protection project will be constructed to protect the city. It is essential to the rebuilding and long-term recovery effort of these two communities. I would ask the consent of the committee to also include a statement by Grand Forks Mayor Pat Owens in the official hearing record.

The flood on 1997 did not only affect Grand Forks. It also significantly affected the community of Grafton, North Dakota, which is near the confluence of the Park River and Red River, about 30 miles north of Grand Forks. Grafton faced tremendous overland flooding in addition to the waters high above the banks of the Park River. In 1997 the northern Red River Valley was literally transformed from a river to the lake it was thousands of years ago after the glaciers retreated. At some points, in 1997 the Red River reached more than 30 miles wide. It was an awesome sight for anyone able to see it from the air.

To help protect Grafton from such future flooding, the city is seeking to have a project along the Park River reauthorized in this year's WRDA legislation. The project was initially authorized in 1976 after a Corps feasibility study found the project feasible, but the project was deauthorized in 1991 at the city's request because of financial considerations. The city of Grafton has now reconsidered the need for the project and the city's ability to fund the local share of the project, and has decided to seek its reauthorization this year.

The project involves a bypass channel north of the city and a system of tieback levees west of the city. The current total cost of the project is estimated to be \$27.3 million, about \$17.7 million of which would be from Federal funds and \$9.6 million would be non-Federal. The project was clearly feasible when it was previously authorized, and no change has been made or is envisioned for the plan.

To ensure the project remains feasible, the Corps has indicated they would likely conduct a "limited reevaluation report" to review the projects economic feasibility and environmental acceptability. The Administration has indicated, in a letter from Acting OMB Director Jack Lew to the North Dakota congressional delegation, that they would not object to reauthorization of this project if these requirements are met. A copy of this letter is attached to my testimony, and I ask that it also be included in the official record. I would also ask that the committee include in the hearing record a copy of the Grafton city council's resolution and letter of transmittal in support of reauthorizing this project.

Again, thank you Mr. Chairman and Senator Baucus for this opportunity to make the case for these critical flood control projects. I urge you to authorize them, and I would be happy to help provide any additional information the committee finds necessary as you prepare for a mark-up session and flood consideration of this important piece of legislation.

STATEMENT OF PAT OWENS, MAYOR, GRAND FORKS, ND

Mr. Chairman, ranking member Baucus and members of the committee, I would like to take this opportunity to thank you for allowing me to submit written testimony for inclusion in the hearing record for the Water Resources Development Act of 1998. I urge you to authorize permanent flood control for the cities of Grand Forks, North Dakota and East Grand Forks, Minnesota a project which is vitally important to our community.

The winter of 1996-1997 brought record snowfall to our region. A total of eight blizzards between November and April had hit our community hard and by April 7, 1997, President Clinton had twice declared the entire State of North Dakota a disaster area. In April 1997 spring flooding of the Red River at a crest of 54 feet—26 feet above flood stage—inundated the levee system in the city of Grand Forks, resulting in significant damage to the majority of residences, businesses and infrastructure in the city. During the flood the majority of the city was under mandatory evacuation and the remainder of the residents were asked to voluntarily evacuate because the city was unable to provide essential services. The city's water treatment plant was overcome by floodwaters and the water supply was contaminated. Fires in the flooded downtown area destroyed a significant number of businesses city of-

fices were overtaken by floodwaters. The region's only full-service hospital was forced to shut town because the floodwaters swept across town and backed up through the storm sewer and sanitary sewer systems. Three of the city's schools were damaged beyond repair.

Today the city of Grand Forks is on the road to recovery. Downtown businesses that were damaged or destroyed by the fire are either back up and running or rebuilding. The Pulitzer Prize winning newspaper *The Grand Forks Herald* rebuilt in the exact same location where their building had burned down. Groundbreakings of a downtown Corporate Center and County Office Building took place in May. There is a feeling of community spirit and re-growth in Grand Forks that could never have taken place without the assistance of Federal and State Governments non-profit organizations, people and agencies across the United States, and of course, the citizens and city employees of Grand Forks. I would like to take this opportunity to thank everyone who has helped us this past year. Unfortunately, the city will not be safe or secure from a repeat of this devastation unless permanent flood control is in place.

Both the Cities of Grand Forks and East Grand Forks have worked closely with the U.S. Army Corps of Engineers to develop a permanent flood control project. Without permanent flood control protection, the city will be left in a state of uncertainty regarding future flooding. The project involves several miles of levees, floodwalls, and road raises to be constructed along both sides of the Red River, as well as the Red Lake River, which joins the Red River in Grand Forks.

The project selected jointly by the cities of Grand Forks, ND and East Grand Forks, MN is the National Economic Development (NED) plan. This specific proposal provides the greatest net benefits for the price at a benefit/cost ratio of 1.13. The project's total cost is \$300.6 million with a 50-50 split between the Federal Government and State/local government. The non-Federal costs have been divided between the two cities in a 70-30 split, with the city of Grand Forks responsible for \$104 million. The State and local governments in North Dakota and Minnesota support this project. Governor Edward Schafer said he would provide \$52 million in State funding, half of the North Dakota share for the non-Federal costs of the project. The administration supports the project and included it in the proposal they sent to Congress. The project also has bipartisan support by Senators Dorgan, Conrad, Wellstone, and Grams, and Representatives Pomeroy and Peterson.

Mr. Chairman, ranking member Baucus, and members of the committee, I ask that you authorize the permanent flood project supported by the U.S. Army Corps of Engineers. The safety and security of the citizens to prevent this type of disaster from happening again can be achieved with a permanent flood control project. Thank you.

CITY OF GRAFTON,
Grafton, ND, February 5, 1998.

Hon. KENT CONRAD,
Federal Building, Bismark, SD.

DEAR SENATOR CONRAD: The City of Grafton passed a resolution of intent to pursue a Park River flood diversion project. We respectfully request your support for the Federal funding of this project and also your assistance in helping guide us through the appropriate procedures.

It is our understanding that local costs will be 35 percent of the total of the project. We believe that this project is an important part of insuring the future of our community as well as providing security against overland flooding.

Thanking you I remain,

Very sincerely yours,

TERRANCE D. HENRIKSEN, Mayor,
City of Grafton, ND.

RESOLUTION NO. 1395

CITY OF GRAFTON—A RESOLUTION OF INTENT—PARK RIVER FLOOD
DIVERSION PROJECT

WHEREAS, residents of the City of Grafton, Walsh County, North Dakota, have suffered severe damage and loss of property during past floods on the Park River, and

WHEREAS, the Corps of Engineers, U.S. Army, has previously prepared a feasibility study which indicates that economic feasibility exists for flood protection measures; and

WHEREAS, improvements for flood protection can be undertaken subject to authorization and appropriation of funds by Congress, provided that local interests agree that when requested they will give assurances satisfactory to the Secretary of the Army that they will share in the total cost of the non-Federal share which is estimated to be approximately \$9.55 million; and

WHEREAS, the City of Grafton, Walsh County, North Dakota, recognizes that the construction of flood protection works is essential to the residents of this city for their public health and general welfare; and

WHEREAS, the said City of Grafton, North Dakota, has the legal capacity and the financial ability to share in the required local cooperation if and when requested,

NOW THEREFORE BE IT RESOLVED by the City Council, City of Grafton, North Dakota, that it desires flood protection for its residents and that it desires and hereby declares its willingness and intention to undertake and carry out the items of local cooperation substantially as set forth above, as and when requested.

BE IT FURTHER RESOLVED that certified copies of this resolution be furnished to and filed with the District Engineer at St. Paul, Minnesota, as evidence of the City's approval of a project for flood control in and near said City of Grafton, Walsh County, North Dakota, and of its intent and willingness to cooperate with the United States as specified.

ADOPTED: December 11, 1997.

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF MANAGEMENT AND BUDGET,
Washington, DC, June 4, 1998.

Hon. KENT CONRAD,
U.S. Senate, Washington, DC.

DEAR SENATOR CONRAD: Thank you for your letter regarding the Water Resources Development Act (WRDA) of 1998 and Grand Forks—East Grand Forks project and the Grafton project in North Dakota. You will be pleased to know that the Grand Forks—East Grand Forks project was included as one of five project authorizations in the Administration's WRDA 1998 proposal. This will allow for prompt construction of a permanent flood protection project for these communities, and so support rebuilding and recovery efforts. The authorization is contingent on final approval of the Chief of Engineers report.

Concerning the Grafton project, thank you for informing us that the City of Grafton recently decided that it would like the Corps project to be reauthorized. Since many years have passed since the original authorization, the economic and environmental acceptability of the project would need to be updated and reconfirmed. The Administration would not object to reauthorization of this project as long as these requirements are met.

As you know, the President strongly supports the work of North Dakota to resolve flooding problems in the State. Thank you for calling these important projects to our attention.

Sincerely,

JACOB J. LEW,
Acting Director.

STATEMENT OF HON. JOHN T. DOOLITTLE, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF CALIFORNIA

Mr. Chairman and members of the committee, thank you for allowing me the opportunity to testify today on an issue of great importance to me, my constituents and the entire Sacramento region.

Two years ago, I sat before this very committee and told you about the flood threat in Sacramento. At that time, Sacramento had just 100-year level flood protection—giving it the dubious distinction of having the lowest level of protection of any major river city in the country.

I explained then how the Army Corps of Engineers had determined that Sacramento could suffer a 250-year flood event at anytime, in any given year. And I told you in as explicit terms as I knew that, if we didn't do something right away, Sacramento would flood and people would die.

On that day, along with a united congressional delegation, I asked you to do the only thing that would prevent Sacramento from flooding and, more importantly, the only thing that would protect the lives of the 400,000 men, women and children living there. On that day, I asked you to authorize the construction of the Auburn Dam.

In addition to my asking you to do the right thing that day, I also pleaded with you to not do the wrong thing. I asked you to not authorize a flood control plan that was so dangerous it was only supported by a handful of extreme environmentalists who saw it as a way to kill the Auburn Dam.

Their plan was called the Stepped Release Plan, and its solution for Sacramento was to raise the existing levees that protect Sacramento to such heights that they would be able to withstand almost 60 percent greater flood flows.

The environmentalists supported the Stepped Release Plan because it would have killed the Auburn Dam. I opposed that plan because it would have killed people.

Thankfully for Sacramento, others agreed with me. In fact, the opposition to the Stepped Release Plan was impressive and impactful:

- Butch Hodgkins, the Executive Director for the Sacramento Area Flood Control Agency, testified before this committee that the Stepped Release Plan would “red-line” the system leaving little room for error.

- David Kennedy, the State’s Director of Water Resources, in a letter to Chairman Shuster argued that the “deeper and faster river flows” of the Stepped Release Plan “would increase the probability of levee failure caused by erosion.”

- And in the most damning critique of the plan of all, Joe Countryman, the very engineer who designed the proposal, wrote in a strongly worded letter to the committee that, “By putting more water through the system instead of developing upstream storage, the Stepped Release Plan pushes the existing system to its limits. Many experienced flood operators are very concerned that the 100-year old flood system would not be able to withstand the planned 56 percent increase in flood flows that the Stepped Release Plan would require.”

- Even the Sacramento Bee—a newspaper not known for agreeing with me on much—warned Washington about the potential dangers of the Stepped Release Plan, saying, “. . . [the Stepped Release Plan] is the most dangerous of all the flood plans under review, posing major risks both for public safety and the environment. It is also by far the most expensive in terms of the local costs it would impose because it fails nearly all the tests for justifying Federal investment. Fortunately, it was never seriously considered by the local flood board . . .”

Words like “red-line,” “major risks,” “levee failure,” and “fails all the tests” are not normally used to describe a project that this committee authorizes, and thankfully for the 400,000 residents of Sacramento put in jeopardy by that plan, this committee rejected the Stepped Release Plan.

I’m sure it won’t surprise you that, in their ongoing effort to kill the Auburn Dam, the extreme environmentalists are once again asking you to support this dangerous plan in this year’s Water Resources Development Act.

But what will surprise you is that many of those who testified against the Stepped Release Plan 2 years ago have now joined with the environmentalists in supporting the very plan they once called the most dangerous of all.

You will hear from them that the Stepped Release Plan is now a safe plan, that the half-century old levees—as battered and unstable as they might be—are now certain to withstand the 60 percent greater flood flows, and that this plan will now adequately protect Sacramento from flooding.

So you might be asking yourself, “what’s changed in the last 2 years?” Have things changed so much in Sacramento that “the most dangerous plan of all” can be transformed into the preferred flood control alternative?

It is true that things have changed in Sacramento. But the change is not what you might expect given the recent switch of position by some, and it certainly isn’t a change that would give you any more reason to support the Stepped Release Plan.

The first change that occurred is that, on New Years Day of 1997, Sacramento—and virtually the entire State—once again suffered severe flooding.

In fact, the flood was so great that the State of California called it “probably the largest in the 90-year northern California measured record . . .”

Over the course of the 3-day storm, 30,000 homes were ruined throughout northern California, \$2 billion in property was flooded, 2,000 businesses were destroyed, and 17 people were killed.

The devastation was largely caused when more than 50 levees throughout northern California broke—the very same type of levees which protect Sacramento from flooding today and which supporters of the Stepped Release Plan are asking you to rely on to protect Sacramento.

Fortunately for Sacramento, the American River levees held strong.

But had it not been for an already existing dam upstream and a little luck from Mother Nature, Sacramento would have flooded. Indeed, consider the following facts and you'll see how lucky Sacramento was:

- Inflow into Folsom Reservoir peaked at 252,500 cubic feet per second—the greatest inflow ever measured in recorded history.

- In order to compensate for the massive inflow, for over 30 straight hours, the Bureau of Reclamation made releases of 115,000 cubic feet per second from Folsom Dam—the maximum amount the American River levees are presently designed to withstand.

- The County of Sacramento River issued a voluntary evacuation order.

- And most frightening of all, if the path of the storm had been just slightly north—as originally predicted—the Bureau would have most likely had to make releases of 160,000 cubic feet per second—well beyond the design capacity of the levees. If that had happened, hundreds of people would have been killed and the Federal Government would have spent billions bailing out Sacramento.

The second change is that, as a result of the 1997 floods, the Army Corps of Engineers conducted a study to re-evaluate the flood risk to Sacramento. The Corps' conclusion: Sacramento's flood risk is much higher than what was believed just 2 years ago.

In fact, in its recently released report, the Corps dropped Sacramento's flood protection by over 20 years, leaving Sacramento with only a dismal 77-year flood protection.

And, finally, the third change is that the Army Corps of Engineers has determined that the Stepped Release Plan no longer protects against a 200-year flood event.

In fact, in its recent report, the Corps dropped the level of protection provided by the Stepped Release Plan down to a low of only 145-year protection, leaving the Auburn Dam as the only alternative able to protect against a 200-year flood event.

This point is of critical importance, because in 1996 before this very committee, everyone—including the environmental community—agreed that Sacramento needs at least 200-year protection if it is to adequately protect against a catastrophic flood event.

So, it's unquestionable that something has changed in Sacramento in the last 2 years: things have gotten much worse.

And now it is clearer than ever that, without an Auburn Dam—without a plan that provides at least 200-year protection—Sacramento will flood and people will be killed.

So you may ask, given this fact, why would the Sacramento Area Flood Control Agency and two members of Sacramento's congressional delegation ask you to support a plan that is clearly inadequate and just as dangerous for the 400,000 living in Sacramento's floodplain?

Why have they, at this crucial juncture, now decided to conveniently forget the testimony they gave in 1996 and support the very plan they argued 2 years ago would kill hundreds of people?

The answer is simple: They don't believe this committee will do the right thing.

They don't believe this committee will tell the environmental community that lives are more important than river canyons.

They don't believe this committee will vote for the only plan which, for just \$200 million more (in Federal dollars), will provide Sacramento with almost three times the level of flood protection.

They don't believe that this committee is concerned that almost every expert who has looked at the Stepped Release Plan has questioned its reliability.

They don't believe that members of this committee care that, after spending more than \$.5 billion on the Stepped Release Plan, Sacramento will still flood and people will still die. And when that event happens, the \$500 million "investment" in flood control will be dwarfed by the \$7 billion flood relief bailout Sacramento will seek.

To them, something is better than nothing—even if it's a dangerous plan, even if it diminishes their hopes for the only flood control solution that protects them against the flood the experts know will come, even if it still keeps 400,000 men, women and children in jeopardy.

Mr. Chairman, I have more faith in this committee than that.

I have faith that, when it comes right down to it, this committee will resist doing the politically expedient thing and instead will choose to do the right thing.

We have a moral obligation to do everything within our power, expend every bit of energy, and risk every bit of political capital we possess to make sure that people don't die before we give them the flood protection they need.

I'm not afraid to do the right thing. I know that my standing in the way of any flood protection is politically risky; I know that supporters of the Stepped Release

Plan think I'm obstructing progress. But it's a risk I'm willing to take, because in the end my actions will save lives.

Sacramento—and the people who speak for its residents—need to become realistic about the grave threat which looms over every man, woman and child in the floodplain.

They need to be realistic and brave enough to acknowledge that regardless of the “tinkering” we do with its flood control system, those 400,000 people remain in peril until Sacramento gets at least 200-year protection.

Unfortunately, Sacramento doesn't care to face reality. That's why its coming to you today and asking you to spend \$.5 billion for a plan that experts acknowledge falls some 50 years short of even minimally adequate flood protection.

This committee needs to tell Sacramento it needs to get serious about protecting it's people. This committee needs to acknowledge, that on its own, the city is not going to muster the political courage to adequately address its flood control problems and that it needs direction and incentive.

With that in mind, I will be sending to you shortly legislation which will make Sacramento get serious about its flood control problems and help the city protect its people.

Each of these proposals is far more responsible, far more cost-effective and far less controversial than the inadequate flood plan you have been asked to approve by some today. These initiatives include:

- Requiring FEMA to keep in effect flood insurance and building regulations until Sacramento has flood control which protects against a 200-year flood event
- Requiring that any “stop-gap” flood control measures which do not offer 200-year protection (and which are not a part of a larger, comprehensive, and congressionally authorized plan to protect against such a flood) be eligible for a maximum 25 percent Federal cost share
- Requiring a “Chiefs Report” from the Corps of Engineers before any flood control project for Sacramento is authorized
- Prohibiting Congress from authorizing any modifications to Folsom Dam until additional studies of other alternatives are completed by the Corps
- Requiring that any modifications to Folsom Dam fully mitigate for significant economic drawbacks caused by the disruption of traffic on Folsom Dam road
- Transferring the current Auburn Dam site to the State of California so that a flood control decision can be made closer to home.

Mr. Chairman, I will close with one last thought. If we had an opportunity to help the people of Alabama by supporting a plan which would guarantee them that not one more person would be killed by a tornado, not one more house would be destroyed and not one more family's life would be changed for the worse, we would do it in a heartbeat—no matter how strong the environmental opposition.

We have a similar opportunity here today. The only difference is that, if we act quickly enough, we can actually prevent the devastation from ever occurring, instead of just providing the fix for it after people have been killed.

Our first step toward that end is clear. I request of you today that you reject the Stepped Release Plan in its entirety and join me in working to implement the initiatives which I have outlined to you.

In all my years of holding elected office, I have never dealt with an issue of this importance, with this urgency, and with this much at stake. Working together, I am confident that we can work to make Sacramento be realistic about its flooding peril and also give Sacramento the protection it needs and deserves.

STATEMENT HON. WALLY HERGER, A REPRESENTATIVE IN CONGRESS FROM THE
STATE OF CALIFORNIA

Mr. Chairman, members of the subcommittee, in the past 12 years, California has suffered three 100-year level floods. In 1986 flooding caused \$400 million worth of damage, fortunately no lives were lost. In 1995, however, 28 people were killed and more than \$1.8 billion worth of damage was caused by early and late winter floods. In 1997, nine people were killed and more than \$2.6 billion in damage occurred when warm winter rains melted an unusually high snow pack, forcing water into California's overburdened flood control system.

Mr. Chairman, for quite some time, I have felt the most effective flood control policy for California is to place the highest value on human life and to allow preventative maintenance procedures as a priority over post-disaster repairs. It is important to pursue all possible solutions to ensure the best available flood policy for California. These efforts should include an aggressive approach to flood control that stresses improved levee systems and increased off-stream water storage facilities.

Without a combination of measures, levees, by themselves, provide only limited protection and provide no guarantee that they will not fail. In fact, it has been said that, over time, there are only two types of levees, those that have failed, and those that are going to fail. When we get warm rains on top of heavy snow levels, as we did prior to the flood of 1997, nothing short of increased water storage can prevent catastrophic flooding.

California has an absolute need to develop aggressive flood prevention programs and to increase its off stream water storage. Our flood control system has failed four times in the past 12 years. We cannot, therefore, implement any program that would weaken California's flood control system.

In particular, I have serious concerns about the flood control plan advanced by the Sacramento Area Flood Control Agency (SAFCA). This plan, which calls for modifications to Folsom Dam and nearly \$400 million in levee improvements along the American River, is seriously flawed. My strong opposition to the plan centers largely on two issues: (1) First, the plan fails to provide adequate flood protection. For example during the 1996 congressional debate on this issue, representatives of every aspect of northern California—including environmentalists—testified that any flood control plan for Sacramento must protect, at minimum, against a 200-year flood event. The proposal currently provided by SAFCA is not only extremely expensive, costing taxpayers \$.5 billion, but it offers approximately only a 150-year protection. (2) Second, the plan puts the lives of 400,000 floodplain residents in serious danger. Again, during the 1996 debate Northern California residents opposed a plan nearly identical to that which was passed by SAFCA this year as dangerous and unworkable. At that time, SAFCA's own testimony said the plan would quote "red-line" the system, leaving little room for error. California's Water Resources Director, David Kennedy, argued quote "deeper and faster river flows" would "increase the probability of levee failure." End quote. And in a stunning critique, the very engineer who designed the plan testified that quote "by putting more water through the system . . . [the plan] pushes the existing system to its limits. Many experienced flood operators are very concerned that the 100-year old flood system would not be able to withstand the increased river flows called for under the plan." End quote.

Mr. Chairman, I am not opposed to providing flood protection to Sacramento; however, the plan adopted by SAFCA is critically inadequate and dangerous. As such, I strongly oppose the plan in Congress and ask the members of this subcommittee to oppose the plan as well.

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

INTRODUCTION

Mr. Chairman and members of the subcommittee, I am Joseph Westphal, Assistant Secretary of the Army for Civil Works. Accompanying me are Major General Russell L. Fuhrman, Director of Civil Works for the Army Corps of Engineers and Michael Davis, Deputy Assistant Secretary of the Army for Civil Works. We are here today to present the Department of the Army proposals for a Water Resources Development Act of 1998 and to respond to your questions. We appreciate the opportunity to work with the Congress on this important legislative initiative. Further, it is an honor that my first testimony as Assistant Secretary is before this distinguished subcommittee on such an important piece of legislation.

HISTORY AND MISSIONS OF THE CORPS OF ENGINEERS

We in the Department of the Army are proud of the long and distinguished history of the Army Corps of Engineers and its service to the country. Since its founding in 1775, the Corps of Engineers has contributed to this Nation, through its engineering support to the military, as the lead agency for the development of the Nation's water resources, and through programs that restore and protect our environment. Early on, our missions included such activities as construction of coastal fortifications and lighthouses, surveying and pathfinding on the frontier, construction of public buildings, snagging and clearing of river channels, and construction and operation of early national parks such as Yellowstone.

To enhance National defense and promote economic development, our first general Civil Works mission was to help develop this country's ports and harbors and an extensive inland navigation system. As areas along our rivers and deltas were developed for agriculture and commerce, flooding and associated flood damages also became a major concern. The Mississippi River Commission was formed in 1879 in acknowledgment of the need for comprehensive water resources development. Major

floods in the Mississippi River basin in the early 1900's resulted in a new role for the Corps of Engineers—flood control. The Flood Control Act of 1936 recognized flood control as a proper activity of the Federal Government and gave responsibility for most projects to the Corps of Engineers. This led to numerous flood control projects (dams, levees and channels) in the decades of the forties, fifties, and the sixties. Many of these projects, particularly the dams and their reservoirs, were multipurpose, providing flood control, hydropower, water supply, navigation, recreation and fish and wildlife enhancement. Although these projects served critical purposes, the lack of good floodplain management in many instances resulted in extensive development in the floodplains, often placing more people and development at risk. In the decades of the seventies, eighties and the nineties, as numerous floods exceeded the capacity of some flood control projects and caused extensive damage, it became apparent that better management of the floodplains and a comprehensive strategy for flood damage reduction or mitigation was necessary. Today, we've learned not to use the term "flood control" as it creates a false sense of security that may be not only unrealistic, but also dangerous. In the past decade, we've gained a more realistic sense of Mother Nature's propensity to demonstrate that floodplains were designed to receive flood waters. Instead we now focus our efforts on reducing flood damages and, where appropriate, moving people out of harms way.

Army Corps of Engineers Main Mission Areas:

- Navigation
- Flood Damage Reduction
- Environmental Restoration

Our third major mission; environmental protection and restoration is not a completely new mission area for the Corps. In fact, this mission had its origin in the Refuse Act of March 3, 1899, which granted the Secretary of the Army authority to control certain discharges into and along the navigable waters of the United States. An excerpt is quoted below:

"It shall not be lawful to throw, discharge, or deposit, or cause, suffer, or procure to be thrown, discharged, or deposited either from or out of any ship, barge, or other floating craft of any kind, or from the shore, wharf, manufacturing establishment, or mill of any kind, any refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States, or into any tributary of any navigable water from which the same shall float or be washed into such navigable water; and it shall not be lawful to deposit, or cause, suffer, or procure to be deposited material of any kind in any place on the bank of any navigable water, or on the bank of any tributary of any navigable water, where the same shall be liable to be washed in such navigable water, either by ordinary or high tides, or by storms or floods, or otherwise, whereby navigation shall or may be impeded or obstructed: . . ."

The Corps environmental mission has been expanding over time with major changes in environmental law and policy, such as the National Environmental Policy Act of 1969, which requires each Federal agency to assess fully its actions affecting the environment, and the Federal Water Pollution Control Act of 1972 (commonly called the Clean Water Act) in which the Corps was given a major responsibility for regulating the discharge of dredged or fill material into all of our Nation's waters, including wetlands. Subsequent Water Resources Development Acts have expanded further the environmental protection and restoration mission of the Corps of Engineers.

While the Corps has undertaken and continues to execute many Civil Works missions, to include disaster response, hydropower production, recreation, water supply, coastal shore protection, natural resources management and development of environmental infrastructure, the three primary missions of navigation, flood damage reduction, and environmental protection and restoration are the priority outputs of today's Civil Works program.

IMPORTANCE OF A WATER RESOURCES DEVELOPMENT ACT

We share with the Congress a firm commitment to water resources development and the biennial authorization cycle with the following goals:

- A strong water resources development program is a sound investment in our Nation's 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, provide recreational opportunities, and protect and enhance our rich environmental resources.

- We have a responsibility to our project sponsors who have been doing their part by sharing feasibility study costs and construction costs. Our goal is to match our sponsors' commitment with realistic, cost efficient schedules, and timely authorization for justified and environmentally acceptable projects.

- The 2-year authorization shows our support for orderly water resources development. A water resources development act is the principal vehicle for obtaining necessary legislation to authorize the projects that our studies have shown to be good Federal investments. Legislation is often necessary to realize the goal of making our programs more effective and efficient by addressing policy issues.

As you are well aware, there are many pressing needs for water resources development in this country. We must work together to address these problems in the full light of our fiscal capabilities and constraints. To help us meet our mutual objectives, we suggest the following principles be utilized as we formulate a final Water Resources Development Act for 1998:

- *Preservation of the Concept of Cost Sharing.* At the heart of the Water Resources Development Act of 1986 were the beneficiary pay reforms which included cost sharing. This allowed local sponsors the opportunity to be active participants in the water resources development process, thereby revitalizing the program. Cost sharing serves as a market test of a project's merits, ensures active participation by project sponsors and beneficiaries, and ensures project cost effectiveness. We have found it to be an eminently successful policy. The cost sharing reforms enacted in WRDA 1996 should also be preserved.

- *Fiscal Responsibility.* The Nation's water resources infrastructure must be maintained and improved to meet future needs, but 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 timeframe. In light of the \$20 billion backlog of ongoing Corps construction projects, and other authorized projects awaiting construction, the dollar magnitude for new projects and programs in the Administration's proposal is constrained. It is limited to authorizing vital new projects and programs, some of which are expected to be phased in over a number of years, to give priority to completion of ongoing construction projects. The total cost of the bill is \$1.462 billion, with a Federal cost of \$829 million and a non-Federal cost of \$633 million. This will allow us to move toward a more sustainable long-term construction program and more timely project delivery to non-Federal sponsors. To authorize a significantly greater number of new projects and programs than proposed by the Administration would be untenable.

- *Authorization of Justified Projects That Have Completed Administration Review.* To justify the authorization of appropriations of constrained Federal dollars, we must assure the public that proposed projects have passed a full review and are in accord with the Federal laws and policies established to protect the environment and to set priorities for the use of those funds. The Administration urges Congress to restrict new authorizations to justified projects likely to be funded over the next several years.

THE ARMY CIVIL WORKS LEGISLATIVE PROGRAM FOR 1998

The Army Civil Works legislative program was forwarded to the Congress on April 22, 1998. This program consists of important legislative proposals for the administration of the Civil Works program and authorizations for projects recommended by the Administration. I would like to emphasize some of the more important provisions below:

Challenge 21—Flood Hazard Mitigation and Riverine Ecosystem Restoration

Challenge 21, the centerpiece of the Army Civil Works Legislative Program for 1998, will provide the Nation with a comprehensive tool for reducing flood damages. Part of a \$25 million Fiscal Year 1999 budget request, this initiative expands the use of non-structural options to achieve the dual purposes of flood damage reduction and the restoration of riverine ecosystems. *Challenge 21* responds to those communities who have expressed a strong desire to aggressively reduce or even eliminate repeated losses and improve the quality of their environment by creating partnerships with these State, tribal and local entities, allowing their priorities to be realized.

The Mississippi River floods of 1993 and the floods of 1997 revealed both strengths and weaknesses in the way we manage floods and have taught us important lessons about Federal floodplain management. These record floods have submerged entire towns; destroying homes, businesses, farms, wildlife and, in some cases, taking human lives. In response we, as a Nation, are now spending over \$4 billion a year for disaster recovery due to floods. And while the dams and levees

we've built continue to prevent billions of dollars in flood damages, many communities are still flooded—often on a frequent basis. We have learned several lessons from these tragic events.

Challenge 21 will:

- Focus on non-structural solutions to reducing flood damages while maintaining the flexibility to use more traditional structures (e.g., levees, flood walls) where appropriate;
- Create a framework for more effective Federal coordination of flood programs;
- Create a partnership with the community to develop a comprehensive solution to reducing damages and improving quality of life; and
- Focus on watershed-based solutions that can include the restoration of riparian and wetland ecosystems.

One very important lesson we've learned is that structural flood control measures are not always successful in preventing the flooding of our communities. In some cases, no matter what we do and no matter how much money we spend, the waters still come. In those cases, we should focus less on trying to control flood waters and more on reducing the negative impacts of flood damages. This leads us to another important point—paying billions of dollars annually for repeated damages is not a fiscally sustainable course. We must break this cycle and aggressively look to other solutions. Since flooding cannot always be prevented, we can reduce our national disaster relief bill by shifting our focus to include a greater use of non-structural flood damage reduction measures.

In some cases, structural solutions have lulled us into a false sense of security as we build closer and closer to the river. In fact, in many cases, development and the resulting increase in stormwater run-off have dramatically changed the hydrology of our floodplains by significantly reducing their ability to store water. In addition, development in the floodplain has often had devastating effects on the natural ecosystems and habitat along our rivers. Thus, another lesson we've learned is that over-development of our floodplains has, in some cases, actually increased the risk of flooding. This committee has been helpful in this area by passing a WRDA in 1996 that requires that communities prepare floodplain management plans as a condition for Federal flood projects. However, we need to do more.

Examples of Non-structural Approaches:

- Removal of floodplain structures
- Floodproofing
- Flood warning systems
- Wetlands restoration

Challenge 21 responds, through its focus on nonstructural alternatives to flood protection, to the first lesson, that structural flood control measures are not a panacea. *Challenge 21* will work with other Federal agencies to move families and businesses out of harm's way, where appropriate, thereby returning the floodplains of rivers and creeks to a condition where they can naturally moderate floods, while maintaining the flexibility to use more traditional structures and ultimately reducing our national natural disaster relief bill. Potential solutions will include an array of cost-effective non-structural and structural measures. Through these measures, *Challenge 21* will also provide benefits to our environment. For example, a project might include the relocation of threatened homes and businesses and the restoration of wetlands and other natural floodwater storage areas within the floodplain.

Quick Facts on Challenge 21:

- Six year programmatic authority for the Corps of Engineers;
- \$325 million total Corps program cost;
- \$75 million Corps per project cap;
- Projects subject to specific criteria;
- Projects will be cost-shared 65 percent Federal/35 percent non-Federal;
- Project notification to Congress required;
- Report to Congress on program accomplishments required by 2004.

Structural approaches to flood protection will continue to play an important role in our efforts to reduce flood damages when such solutions are economically and environmentally justified. *Challenge 21* projects may, in fact, include structural components as part of an overall flood damage reduction strategy. In short, with *Challenge 21*, the Corps is expanding its flood damage reduction mission portfolio to more effectively meet community needs.

Western Governors' Association

In their December 1997 Report, WGA recommended that "Federal and State priorities should encourage relocation and restoration of the natural beneficial functions of flood plain areas."

Subsequently in a June 9, 1998 letter to congressional committees, WGA wrote, "The Western Governors find that the concepts behind *Challenge 21* to be consistent with many of the priorities we identified. . . . in our December 1997 report. We commend the Corps for putting forward this proposal.

Challenge 21 will also improve inter-agency and inter-governmental coordination. The Western Governor's Association's January 1997 report, "An Action Plan for Reducing Flood Risk in the West", not only recommended nonstructural floodplain management tools, but also outlined State and Federal roles and responsibilities. These Governors recognized that no one level of government will solve this problem. It will take the combined, coordinated effort of Federal, State, tribal, and local government, working in cooperation with communities, to be successful. The Corps, along with Federal Emergency Management Agency (FEMA), the Department of the Interior and the Environmental Protection Agency (EPA), have signed a memorandum of agreement with the Western Governor's Association (WGA) to implement specific actions of coordination. Thus, another lesson we've learned is that Federal floodplain management policy needs to be better coordinated and the work needs to be shared not only throughout the Federal Government, but also by creating partnerships with State, tribal, and local entities.

Challenge 21 projects will also be coordinated fully with Federal, State, tribal and local communities. Because the cost of projects will be shared, no project will be implemented unless State, tribal and local sponsors support it. Thus, through coordination with other Federal agencies and State and local communities, *Challenge 21* addresses another lesson we've learned from the past decade of floods—flood damage reduction efforts must include partnering between Federal agencies and State, tribal and local communities.

Watershed by watershed, *Challenge 21* builds on existing programs and initiates and expands partnerships with other Federal and non-Federal national and local entities. Key Federal partners include FEMA and the Department of Agriculture. Through Federal partnering, a *Challenge 21* project could include an urban structure relocation piece led by FEMA and a rural wetland restoration piece led by the Department of Agriculture's Natural Resources Conservation Service. Thus, *Challenge 21* relies on the collective knowledge, expertise and authorities of many Federal water resource agencies.

The Willamette River in Oregon is a good example of a potential *Challenge 21* project. The existing system of Corps projects in the Willamette controls only about 27 percent of the basin runoff and is capable of controlling up to a 2 to 5 year event. After a thirty year absence, major flooding became a real and powerful presence in February 1996 for the Willamette River Basin. Flood frequencies ranged from a 2 to 200 year event, 23 counties were declared disaster areas, numerous cities and communities suffered major damages and agricultural losses were widespread. Due to continued population growth and corresponding development in the Willamette floodplain, the Willamette River Basin has lost much of its natural flood storage capacity and a significant flood risk remains.

In 1996, the conservation group River Network completed a study of the hydrologic feasibility and benefits of restoring floodplains for natural flood management in the Willamette Valley. They concluded that floodplain restoration opportunities exist to reduce flood hazards to homes, public structures and farms while allowing for fish and wildlife habitat restoration. In addition, the Willamette Basin Floodplain Restoration Study is a new start General Investigation study for fiscal year 1998. The proposed study and project focus on benefits of flood damage reduction and ecosystem restoration. This provides an excellent opportunity to provide additional flood protection for the Willamette Basin through nonstructural floodplain restoration measures.

National Association of Flood and Stormwater Management Agencies Support Challenge 21

In an April 14, 1998, letter, NAFSMA wrote, "The NAFSMA Board of Directors strongly supports *Challenge 21* . . . and are very encouraged by this important new initiative for the U.S. Army Corps of Engineers."

Non-structural flood damage reduction measures are gaining momentum across the country. We are very interested in pursuing such approaches as we work with communities to reduce flood damages. It is important to note that this is not just an Army initiative—many communities and floodplain interest groups support *Challenge 21* nonstructural approaches. In a March 31 hearing before the House Trans-

portation and Infrastructure Committee, the National Association of Flood and Stormwater Management Agencies, the National Wildlife Federation, American Rivers and the Association of State Floodplain Managers all expressed support for non-structural solutions. And the National Association of Flood and Stormwater Management Agencies and the National Association of Counties, recently joined the other groups in endorsing *Challenge 21*.

“. . . Be it resolved that the National Association of Counties supports the watershed based, multi-agency initiative for Riverine Ecosystem Restoration and Flood Hazard Mitigation (*Challenge 21*) . . .”—*National Association of Counties March 1, 1998 Resolution*

We have learned a great deal from the floods of the past and these important lessons have prompted the Administration to find a more sustainable approach to reducing flood damages and restoring our riverine ecosystems now . . . an approach that plans for the future before the flood occurs. We believe that *Challenge 21* is that approach. *Challenge 21* will attempt to find permanent nonstructural solutions to reduce flood damages that, in the long run, will reduce the natural disaster bill to the American taxpayer.

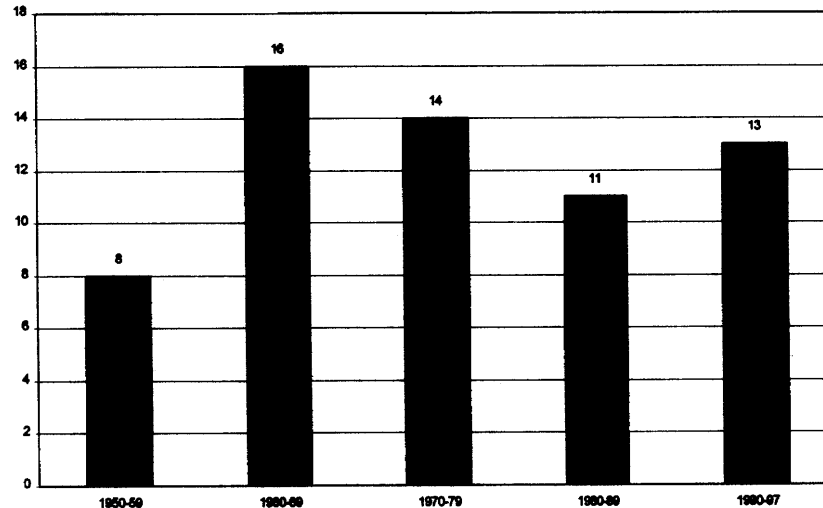
The recent floods associated with El Nino have reinforced the key lessons we've learned from the Mississippi River floods of 1993. Despite our continued reliance on structural flood control measures, the overall cost of flooding disasters has only increased. *Challenge 21* attempts to break the cycle of repeated flooding by addressing the weak links in our national floodplain management policy with a new initiative that not only reduces the devastating effects of flooding but also restores our riparian environment. Working together to enact *Challenge 21*, the Congress and the Administration can exercise the leadership that is needed to provide communities with an important new tool in our flood damage reduction tool box.

Shore Protection Policy

The Administration is proposing a new approach to shore protection that would allow a renewed commitment to shore protection in the Army Corps of Engineers. With the adoption of this approach, the Administration will consider, consistent with overall funding constraints, shore protection projects on an equal basis with other water resources development projects.

As you know the Administration and the Congress have not had a common vision of the Nation's shore protection policy. The Administration has had two concerns. First, commitments on existing shore protection projects that involve periodic nourishment require a significant amount of future Federal funds. We have found it difficult to initiate new projects in the face of the cost of these commitments. Figure 1 below shows the number of shore protection projects where initial construction was completed by the Corps over the last 50 years. Of these projects, the Corps has a responsibility to participate in the periodic nourishment of about 46 projects. In addition, there are 11 authorized projects under construction, 14 authorized projects awaiting construction, with another 17 in the design phase. In addition to these, the Corps has almost 30 potential projects being evaluated in feasibility studies. These all show an even greater demand for future Federal funding of hurricane and storm damage reduction projects.

NUMBER of PROJECTS
When INITIAL CONSTRUCTION was COMPLETED
by DECADE



The second Administration concern is that while these shore protection projects produce storm damage prevention benefits, they also provide local recreation benefits, and that some of the revenue created in the areas that these projects protect should be dedicated to shore protection projects that provide such recreational opportunities. To resolve both these concerns, we have included in the Army Civil Works legislative program a proposal to advance the dialog on how to reconcile this important issue.

Under our proposal, the cost sharing for the initial construction of shore protection projects will remain the same (generally a 65 percent Federal share). However, the cost sharing for periodic nourishment of shore protection projects would change. Our recommendation is that when the project protects a developed area with shores under public control, the cost sharing of periodic nourishment would generally be 35 percent Federal and 65 percent non-Federal. When the project protects undeveloped private property, the cost sharing of periodic renourishment would remain at 100 percent non-Federal; and when the project protects Federal property, the cost sharing of periodic renourishment would remain at 100 percent Federal. We believe this is a fair solution to the difficult problem and that it will free up Federal funds and allow new shore protection projects to be constructed.

OTHER WRDA 1998 INITIATIVES

Everglades and South Florida Ecosystem Restoration

This provision extends the authorization of appropriations for critical ecosystem restoration projects in South Florida through fiscal year 2000 to take advantage of the synergy and collaborative approaches that have evolved to implement a shared vision for ecosystem restoration. Funds were not available to begin work on this important project in FY97, as anticipated. Despite the lack of funding, the Corps, in partnership with the Department of Interior, the State, and many interested parties, compiled and prioritized a list of 38 Critical Projects, whose implementation will provide immediate, substantial and independent ecosystem restoration benefits. The Critical Projects address a suite of environmental restoration and protection needs, involving endangered species, water supply and quality, enhanced water control, nuisance exotic species control, habitat protection and restoration and non-point source pollution reduction. These projects have been nominated and formulated by all levels of government, interested parties, and Indian Tribes. Fourteen Letter Reports have been received for Critical Projects, with ten approved for implementation and the remaining four are under consideration for approval.

While not part of this legislative proposal, I am pleased to report that work on the Comprehensive Plan required by Section 528 of WRDA 1996 is on schedule, and work on six alternatives will be finished in time for an initial draft alternative to be identified by July. A draft Comprehensive Plan will be ready for public review in October 1998. The results are encouraging in terms of achieving and balancing restoration and water supply needs. Extending the authorization of appropriations will enable the partners to achieve fully the environmental restoration objectives set forth in Section 528 of WRDA 1996.

Lower Missouri River Aquatic Restoration Projects

The purpose of this provision is to recognize and build on the existing efforts to restore and protect the Missouri River ecosystem between Gavins Point Dam and the Missouri River's confluence with the Mississippi River. This proposal recognizes the efforts of navigation, agriculture, and environmental communities in developing a consensus and balanced approach to ecosystem restoration in this reach of the Missouri River. Specifically this proposal will authorize a comprehensive report to be completed at full Federal expense within 1 year after funds are made available. The report will identify a general implementation strategy and overall plan for environmental restoration and protection along the Lower Missouri River between Gavins Point Dam and the confluence of the Missouri and Mississippi Rivers and recommend individual environmental restoration projects that can be considered by the Secretary for implementation under section 206 of the Water Resources Development Act of 1996.

Management of Natural Resources

There are several measures that will help us to better manage our important natural resources, primarily at our numerous lakes and reservoirs. One of our more important measures will allow our resource managers to retain funds resulting from increased collections of recreation user fees above the baseline collections. Eighty percent of the increased collections would go to the site from which the fees were collected and 20 percent would be used agency wide. This will serve as an incentive to improve collection of recreation user fees. Another important provision will allow the Department of the Army to enter into cooperative agreements with such organizations as the Student Conservation Service to allow students and faculty to participate in recreation and natural resource management to enable us to better utilize limited operations and maintenance funds.

Measures for Efficient Program Management

There are several measures that will allow us to improve our program management. For example, we have included proposals to allow us to use public or non-profit organizations as project sponsors on aquatic ecosystem restoration and beneficial uses of dredged material projects. Another example is a provision that would allow the Secretary of the Army to accept non-Federal funds from State and local governments to expand our services in compiling and transmitting information on floods and flood damages.

PROJECT AUTHORIZATIONS

Included in the Army Civil Works legislative program are projects recommended for authorization that have been reviewed and approved by the Administration and a conditional authorization for Grand Forks, North Dakota and East Grand Forks, Minnesota. Additional projects are under review at the current time, and these will be furnished to you as soon as Administration review is complete. The projects included are listed below:

- *American River, Sacramento, California.* The flood damage reduction project described as the Folsom Stepped Release Plan in the U. S. Army Corps of Engineers Supplemental Information Report for the American River Watershed Project, California, dated March 1996, at a total cost of \$464,600,000, with an estimated Federal cost of \$302,000,000 and an estimated non-Federal cost of \$162,600,000. This project would both supplement the levee stabilization and strengthening "common elements" that were authorized in the Water Resources Development Act of 1996 and provide a much needed higher level of flood protection to Sacramento, California. We envision that the "common elements" would be completed first, and after a re-evaluation to account for changes that have taken place since the Corps study was completed, the Corps would implement modifications to the Folsom Dam and Reservoir. As the third phase of the plan, the Corps would, after additional studies and a report back to Congress, implement the downstream levee and associated works called for in the Stepped Release Plan.

- *Amite River and Tributaries, Louisiana, East Baton Rouge Parish Watershed.* The project for flood damage reduction and recreation, Amite River and Tributaries, Louisiana, East Baton Rouge Parish Watershed: Report of the Chief of Engineers, dated December 23, 1996, at a total cost of \$110,045,000, with an estimated Federal cost of \$71,343,000 and an estimated non-Federal cost of \$38,702,000.

- *Guanajibo River, Puerto Rico.* The project for flood damage reduction, Guanajibo River, Puerto Rico: Report of the Chief of Engineers, dated February 27, 1996, at a total cost of \$27,441,000, with an estimated Federal cost of \$17,837,000 and an estimated non-Federal cost of \$9,604,000.

- *Rio Nigua at Salinas, Puerto Rico.* The project for flood damage reduction, Rio Nigua at Salinas, Puerto Rico: Report of the Chief of Engineers, dated April 15, 1997, at a total cost \$13,565,000, with an estimated Federal cost of \$7,079,000 and an estimated non-Federal cost of \$6,486,000.

- *Grand Forks, North Dakota, and East Grand Forks, Minnesota.* The project for flood damage reduction and recreation, Grand Forks, North Dakota and East Grand Forks, Minnesota consisting of setback levees and floodwalls, subject to the issuance of a report by the Chief of Engineers and approval of that report by the Secretary of the Army at a total cost of \$281,754,000, with an estimated Federal cost of \$140,877,000 and an estimated non-Federal cost of \$140,877,000.

The inclusion of the Grand Forks, North Dakota, and East Grand Forks, Minnesota project in the Army Civil Works Legislative Program for 1998 as a contingent authorization is an unusual step for the Administration. However, it is one that is justified as an essential step to help those communities rebuild after the devastating floods of May 1997.

HARBOR MAINTENANCE TRUST FUND

As you are well aware, the Supreme Court issued its decision in the case *United States, Petitioner, versus United States Shoe Corporation* on March 31, 1998. The Court determined that the harbor maintenance tax is unconstitutional because it violates the Export Clause of the Constitution. According to the Court, a user fee that is a "... charge designed as compensation for government-supplied services, facilities, or benefits. . . ." would be acceptable in lieu of the harbor maintenance tax. On May 20, 1998, Franklin D. Raines, Director, Office of Management and Budget forwarded the Administration's proposal to establish a Harbor Services Fund (HSF) to the Committee on Environment and Public Works of the Senate, the Committee on Transportation and Infrastructure of the House, and to the Subcommittees on Energy and Water Development, Committee on Appropriations of both the Senate and the House. Director Raines stated the Administration's view that the users of the Nation's ports should be responsible for the costs of ensuring a safe and competitive port system. The HSF would be used to finance both operation and maintenance and the new construction required to maintain a competitive port system.

Following up on the May 20 letter, the Administration expects to transmit, for Congress' consideration, a legislative proposal that would impose a user fee on commercial vessels. The fees would be based on benefits commercial vessels receive from Government harbor development, operation, and maintenance services at ports. The intent would be to recover fees, in the aggregate, that annually would generate funds sufficient to pay the Army's harbor development, operation and maintenance expenses.

CIVIL WORKS STRATEGIC PLAN

The Administration's Water Resources Development Act proposal builds upon the goals set out in the *Strategic Plan for the Civil Works Program*. In August 1997, a draft of the Strategic Plan for the Civil Works Program of the Army Corps of Engineers was distributed for review. After receiving numerous, extensive comments from Congress, other Federal agencies, and stake-holders, the Strategic Plan was completely rewritten. We worked hard to address the comments provided by all of the groups and believe that our final submission addressed all of the concerns and that there were no contrary views. The strategic plan identifies six goals, as follows:

1. Provide the water resources infrastructure to enhance the Nation's economic well-being,
2. Lead in the management, protection, and restoration of the Nation's land and water resources,
3. Provide timely, effective, and efficient disaster preparedness, response, recovery, and mitigation,

4. Improve the delivery of program results for our current customers, and maintain these capabilities in order to respond to the engineering and technical challenges of the future,

5. Develop, motivate, and retain an empowered, world-class workforce, and

6. Be a leading Army program in effectively and efficiently applying its resources to achieve its mission.

The Government Performance and Results Act (GPRA) strategic plan outlines performance measures for each of these goals. For example, we have set our goal to reduce the time from the beginning of the reconnaissance study to being eligible for construction funding (project development time) from the current baseline of an average of 12 years. Our short-term performance goal is to reduce project development time by 10 percent (to 10.8 years), and by 33 percent (to 8 years) in the long-term. To assure that new investments achieve intended program results, we have set construction performance goals to monitor and maintain the economic justification for project (benefit-cost ratio) from beginning of construction through to completion. Our plan also sets operational goals for completed projects, such as maintaining existing commercial navigation and flood damage reduction facilities so they will be fully operational at least 95 percent of the time.

We believe these are important steps to help ensure better performance and improved customer satisfaction for the Civil Works program. We look forward to working with this subcommittee as we implement this plan and continue to improve our performance.

CONCLUSION

Mr. Chairman, this concludes my testimony. I can assure you that our top priority at Department of Army and the Corps of Engineers is to work with your committee to ensure passage of a Water Resources Development Act this year. We are working closely with your staff to provide information and answer questions. We will continue to work and cooperate with you to the fullest extent to complete work on this important legislation.

RESPONSES OF DR. JOSEPH W. WESTPHAL TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question 1. You indicated in your testimony that the so-called “*Challenge 21*” proposal for non-structural approaches to flood plain management is perhaps the top priority for the Administration in this year’s WRDA.

Question 1(A). Do you have candidate projects/locations in mind?

Response. We do not have any specific candidates or projects in mind. All floodplains are eligible for the program. Typically, studies and/or solutions will be undertaken in areas where frequent or severe flooding has occurred, emergency assistance has been necessary, flood hazards have increased due to changes in hydrologic and hydraulic regimes, development is encroaching on floodplains, important floodplain functions and values need maintenance or restoration, or substantial differences exist between planned and actual development in watersheds. Solutions must include both flood hazard mitigation and riverine ecosystem restoration and have strong local support. Using these criteria, an informal survey of potential candidates was conducted. In response to an initial survey of potential projects, Corps districts have identified more than 75 potential candidates. However, this survey was conducted merely to gain a general sense of the types of projects that might be eligible for the *Challenge 21* program and was not intended to be exclusive. In addition to this preliminary survey, we have received many submissions of potential candidates from stakeholders around the country interested in the program.

Question 1(B). Why is it so important to get a “blanket authorization” for this program? In other words, why shouldn’t the Congress authorize these projects individually (after receiving the requisite reports) as we do for other projects of this size?

Response. Programmatic authority is important for timely implementation and flexibility. The *Challenge 21* program is preventive in nature; i.e., it addresses the threat of floods before the waters come, rather than reacting to the loss of life and property. Timely implementation of solutions is critical to the effectiveness and success in preventing flood damages and restoring important ecosystem functions before another flood.

Question 1(C). Why is it the case that non-structural flood control projects (which typically involve: the removal of flood plain structures; flood proofing; flood warning systems; and wetlands restoration)—which as a general matter I support—have had

such a tough time getting off of the ground? Are there difficulties with the economic justification of such projects?

Response. Over the years, the Corps has successfully implemented a number of projects which included nonstructural flood damage reduction measures. The Corps does have some difficulty in moving forward with nonstructural solutions for a number of reasons, ranging from economic justification to sponsor acceptance. The costs of a nonstructural project are often higher than a structural project that could protect the same area. Nonstructural measures normally require modification (or removal) of each structure, whereas construction of a single structural feature would protect the entire area under consideration. In addition, the procedures in place for evaluating both structural and nonstructural flood damage reduction measures limit the inclusion of nonmonetary environmental outputs in the benefit/cost ratio. The *Challenge 21* authorization would eliminate this limiting factor, thereby allowing the Corps to more easily justify and implement nonstructural measures.

Question 2. What sort of dollar levels does the Administration envision for WRDA 1998?

Response. In light of the \$20 billion backlog of ongoing Corps construction projects, and other authorized projects awaiting construction, the dollar magnitude for new projects and programs should be limited to vital new projects and programs to give priority to completion of ongoing construction projects. The total cost of the Administration's bill is \$1.462 billion, with a Federal cost of \$829 million on a non-Federal cost of \$633 million. This will allow us to move toward a more sustainable long-term construction program and more timely project delivery to non-Federal sponsors.

Question 3. Tell me more about your shore protection proposal. As you indicated in your testimony, the Administration suggests that we increase the renourishment costshare for non-Federal sponsors from 35 percent to 65 percent.

Question 3(A). How much money will that save the Administration on an annual basis?

Response. Information is not available to forecast this with any certainty. The Administration proposal is for projects not yet authorized and most of these potential new projects have not advanced to a stage where the savings can be estimated with any degree of confidence. However, to get some feel for the difference the Administration's proposed cost sharing would make, the Corps evaluated 30 already authorized projects that would likely reflect the future mix of shore protection projects. Based on this analysis, the proposed cost sharing would result in an approximately \$30 million cost reduction on an annual basis.

Question 3(B). If the Congress were to approve this proposal, would that mean that the Administration would resume budgeting for shoreline projects?

Response. Yes. With the adoption of this proposal, the Administration will consider, consistent with overall funding constraints, shore protection projects on an equal basis with other water resources development projects.

Question 3(C). What do the shoreline interests have to say about this?

Response. Shoreline interests acknowledge that, in order to keep abreast of the increased demand for new projects, they must allow for changes in cost sharing. They are aware of the current Federal budget situation and are willing to accept revisions in cost sharing if it will allow projects to move forward quicker.

Question 3(D). Have you considered shortening the 50-year renourishment period?

Response. Yes, but it was felt that the approach chosen by the Administration was the most fair and equitable solution for shore protection projects.

Question 4. The Director of the Rhode Island Coastal Resources Management Council (Grover Fugate), who will testify as part of the next panel, believes that sand replenishment on beaches should serve as an interim protection measure while longer term hazard mitigation is being implemented. Have you ever analyzed the notion of temporarily increasing the Federal cost share of shore protection projects where a locality or State is willing to relocate/elevate structures? It seems to me that might be one way to provide an incentive to permanently remove development/structures from harm's way. The increased Federal cost share would only last for the period (maybe 1020 years) in which the non-Federal sponsor is taking steps to conduct verified pre-disaster hazard mitigation.

Response. I do not believe that the Corps has evaluated this type of proposal, but we would be willing to work with the Rhode Island Coastal Resources Management Council on such a proposal. However, I do believe that 10–20 years is far too long

a time period for pre-disaster hazard mitigation. Such structures should be removed as soon as possible.

Question 5(A). Do we need to address the Harbor Maintenance Trust Fund in WRDA 1998?

Response. Technically, no. However, since the Supreme Court found that the Harbor Maintenance Tax was unconstitutional as it applied to exports and the import portion of the Harbor Maintenance Tax is under attack as a possible violation to the General Agreement on Tariffs and Trade, we believe it is appropriate and timely to address a replacement.

Question 5(B). When will the exporters begin to receive their refunds? How far back will the payments go? What year?

Response. There are several issues that remain to be litigated in the Court of International Trade, including applicable interest and the time periods for which exporters may recover funds. The court has ruled that the statute of limitations runs for 2 years from the date of filing the claim, but a number of exporters are arguing that they are entitled to be repaid for all amounts since the law was unconstitutional and therefore void *ab initio*. These issues will likely be decided by the end of this year.

Question 5(C). How much longer do we expect to receive fees from the importers?

Response. Until the Harbor Maintenance Trust Fund is repealed, U.S. Customs is compelled by law to continue collections.

Question 5(D). How big is the Harbor Maintenance Trust Fund surplus? Will it cover refunds to exporters and the fiscal year 1999 O&M costs?

Response. As of September 30, 1997, the Harbor Maintenance Trust Fund balance was approximately \$1.1 billion. The Administration estimates that there will be sufficient funds remaining to pay operation and maintenance expenditures for Fiscal Year 1999 even if the plaintiffs' refund claims are paid out of the Harbor Maintenance Trust Fund.

Question 5(E). How do we replace the Harbor Maintenance Trust Fund? Has the Administration considered paying the O&M out of the General Treasury, as we did before WRDA 1986?

Response. Congress will need to enact legislation repealing the existing harbor maintenance tax and establishing constitutional user fees for the beneficiaries of Federal navigation projects. The Administration believes that users of the network of U.S. ports served by Federal channel and harbor projects should continue to be responsible for the costs of ensuring a safe, reliable and efficient port system and that all user contributions should be applied to providing needed services. Consistent with this belief, the Administration supports legislation establishing constitutional user fees, rather than paying for operation and maintenance costs from the General Fund of the Treasury. The Administration is currently seeking views of other Federal agencies and of non-Federal public and private stakeholders. We are hopeful that the Administration's proposed legislation for a replacement fund and user fee will be introduced within the next few weeks.

RESPONSES OF DR. JOSEPH W. WESTPHAL TO ADDITIONAL QUESTIONS FROM
SENATOR MAX BAUCUS

Question 1(A). Dr. Westphal, the Administration has proposed an environmental restoration and protection plan for the Lower Missouri River. Is there any reason why this program would not be beneficial for the entire Missouri River?

Response. The Administration chose to focus on the Lower Missouri River area because this part of the river is open and conducive to implementation of environmental restoration and protection measures. Furthermore, the Corps and several interested organizations have already begun thinking about types of projects and particular locations in need of critical attention. The Lower Missouri River is very different from the upstream portion of the river, which is characterized by the Pick-Sloan Project. The Pick-Sloan Project, originally authorized in 1944, is comprised of a series of six reservoirs and intervening navigation channels. Once the reservoirs were filled, very few suitable locations (soils, hydrology, shelter) were left for environmental restoration and protection work. Many of the best areas already have been improved through environmental stewardship work done by the Corps and the States. For these reasons, we believe that the proposed legislation can be most effective if it is focused on the Lower Missouri River.

Question 1(B). Would the Administration support including the entire river in this proposal?

Response. If the Congress decided to include the entire Missouri River in the environmental restoration and protection program, the Administration would continue to support the proposal.

Question 2. Dr. Westphal, the Administration's proposal includes a provision for recreation fees to be directed for use at the facilities where they are collected if more fees are collected in the future than are being collected now. Could you explain for the committee how this proposal would work? I understand that the baseline figure included in your proposal is the amount of fees collected today. How do you intend to get above that baseline so that this program will work?

Response. The Corps currently collects approximately \$34 million annually in recreation use fees. The Administration has proposed that 80 percent of any amount collected over the \$34 million would be returned to the Corps project where it was collected to be used for betterments of the Corps recreation program. The remaining 20 percent would be available for expenditure at other Corps projects nationwide. While it will be very difficult for the Corps to significantly increase the recreation use fee revenues, there are at least two Corps initiatives which I believe will have a positive impact on total recreation use fees collected.

The Corps and the U.S. Forest Service have embarked on the National Recreation Reservation Service (NRRS) which will significantly increase access to camping and other reservable recreation opportunities at Corps projects. I expect this improved access will increase visitation and generate increases in revenue. The Corps also has a Recreation Partnerships Initiative (RPI), which is intended to attract private developers to provide additional recreation facilities at Corps projects. While the RPI will not directly increase the Corps user fees, it will attract more people to Corps projects and we expect there will be some spillover which will result in additional user fees collected at nearby Corps facilities.

Question 3. Dr. Westphal, could you elaborate on any other plans the Administration has for enhancing the Corps recreation mission and the continued commitment to recreation at existing facilities?

Response. As I mentioned earlier, the Corps and the U.S. Forest Service have embarked on the National Recreation Reservation Service, which will significantly increase access to camping and other recreation opportunities at Corps projects. Also, as part of the Corps Recreational Fisheries Resources Conservation Action Plan, we are placing an emphasis on providing access to our project tailwater and navigational structures. In Fiscal year 1997, the Corps implemented 65 actions to make Corps tailwater and navigational structures more accessible to the public for recreational fishing. Those actions resulted in creating and improving recreational fishing access to approximately 174,900 surface water acres. Typical examples of such actions include the construction of fishing platforms and stairways, the creation of roads and small parking lots to provide sportsman access to remote tailwater areas, development of foot trails, vegetative control and the construction of fishing piers for physically challenged visitors.

Other innovative actions include: a cooperative effort between the Corps, U.S. Fish and Wildlife Service and the Massachusetts Department of Fish and Wildlife to establish catch and release fishing areas along the Westfield River and Knightsville Dam; the development of a universal access pier at Blue Marsh lake in Pennsylvania; and, a lease with the State of New Jersey at the Penns Grove Disposal area on the Delaware River to create recreational fishing opportunities.

As part of the Corps compliance with Section 208a of WRDA 96, the Corps will shortly conduct stakeholder meetings in an effort to obtain ideas from our customers about the Corps recreation and natural resources management programs. The Corps will then use some of these ideas to refocus its efforts toward the needs of the stakeholders. I expect that such input will help strengthen the Corps recreation program and its continued commitment to recreation and natural resources management. In addition, the Corps plans to continue to use its Challenge cost-sharing authority to leverage its resources to improve facilities and recreational opportunities at its lakes by partnering with others to improve recreation areas and facilities. During 1997, the Corps received assistance from 76,790 volunteers who contributed a total of 1,080,452 volunteer hours which were valued at \$10,443,517. In addition, as a commissioner, appointed by the President, on the National Recreational Lakes Commission, I will be looking for opportunities to enhance our recreational mission and work with States and other Federal partners in improving our services.

RESPONSES OF DR. JOSEPH W. WESTPHAL TO ADDITIONAL QUESTIONS FROM SENATOR
HARRY REID

Question 1. Wouldn't the *Challenge 21* initiative, as proposed, preempt the ability of congressional authorization of projects by utilizing a continuing authority to keep the decisionmaking process within the Corps?

Response. While the *Challenge 21* program does provide for project implementation without specific congressional authorization, it does not remove the Congress from the process of implementing projects. The program requires that the Secretary of the Army notify appropriate congressional committees of a pending decision on a project. Congressional views will be taken very seriously in any decision to implement a project.

Question 2. Additionally, the *Challenge 21* initiative would cost \$325 million over 6 years. As the Ranking member of the Energy and Water Development Appropriations Subcommittee, I find that kind of proposal to be disconcerting in light of the recent appropriations bill in which the proposed budget had cut the U.S. Army Corps budget by about \$1 billion. Would Assistant Secretary Westphal commit to work with this subcommittee and the Energy and Water Development Appropriations Subcommittee in examining projected costs and benefits of such proposals?

Response. It is important to remember that *Challenge 21* is a multi-function program with objectives to expand the use of non-structural alternatives to prevent future flood damages, reduce flood hazards and flood disaster recovery costs and to restore the natural functions and values to our riverine ecosystems. Considering the fact that we are now spending an average of \$4.3 billion a year for flood disaster recovery, the proposed funding represents a modest Federal investment to solve problems that will only worsen and eventually cost more tax dollars. I will certainly work with the committees, both authorizing and appropriating, in the development and implementation of beneficial projects.

Question 3. I also question the *Challenge 21* initiative's purposes:

Question 3(A). Does the focus on watershed based planning instead of project planning effectively undermine the community's support for the Corps' efforts because of the lack of specificity in the planning process?

Response. Rather than being watershed based, the program is perhaps better characterized as involving a watershed approach to the identification of problems and solutions. In the *Challenge 21* program, the watershed approach will provide a better understanding of how and why flooding occurs and how effectively the natural system is functioning. In addition, it will serve to identify a broader variety of potential solutions, resulting in more flexibility, effectiveness and efficiency in addressing floodplain issues and problems at the community level. This approach will result in specific proposals to solve flood damage and ecosystem restoration problems.

Question 3(B). And isn't this new watershed planning and non-construction approach contrary to the historical approach of the Corps, which is to plan and construct projects?

Response. The Corps has long recognized that the watershed is the most effective framework for addressing water resources problems. This watershed orientation has been effective in addressing problems and needs related to navigation and flood damage reduction. This approach is also critical for effectively restoring ecosystems and evaluating the impact of regulated activities. With respect to non-structural measures, the Corps has, over the years, successfully implemented a number of projects which included nonstructural flood damage reduction measures. *Challenge 21* will provide the Corps with a much needed tool to develop projects for situations in which ecosystem restoration is an integral part of solving flooding problems.

RESPONSES OF DR. JOSEPH W. WESTPHAL TO ADDITIONAL QUESTIONS FROM SENATOR
REID ON BEHALF OF SENATOR LEVIN

Question 1. Section 1109 of the Water Resources Development Act of 1986 prohibits new diversions of water from the Great Lakes or any tributary of the Great Lakes basin unless the diversion has been approved by the Governor of each of the Great Lakes States. That section was enacted to "protection the limited quantity of water available from the Great Lakes system for use by the Great Lakes States." In a June 16, 1997 letter from the Assistant Secretary of the Army for Civil Works to Senator Levin, the Corps took the position that, "the matter of groundwater diversions out of the basin is a State issue, not a Federal issue, under either Section 1109 or the Clean Water Act." To clarify, does the diversion of groundwater which

would otherwise discharge into Great Lakes surface waters out of the basin reduce the amount of water available in the basin?

Response. Generally, yes. The diversion of groundwater, which would otherwise discharge into Great Lakes surface waters, to a point out of the Basin would reduce the amount of water available in the Basin.

Question 2. Does not much of the water that feeds the Great Lakes and their tributaries travel through the ground on some part of its journey to the surface waters of the lake?

Response. Generally speaking, groundwater is a relatively small contributor of water to the Great Lakes. More than half of the water entering the Great Lakes comes from precipitation falling directly on the lakes. The remainder is from precipitation runoff from the land area in the basin and from groundwater. The proportion of each of these components varies with the local conditions and the intensity of the precipitation. Heavy rains on wet ground produce more direct runoff. Light rains and dry conditions cause much of the precipitation to be absorbed and become groundwater. Factors that can affect these include the soil types and geology of the area, the slope of the terrain, the gradient of the streams and watercourses that feed into the Lake, and the direction of flow in the aquifers.

However, it should be noted that groundwater may actually remove water from the surface water body, preventing that water from flowing to the Great Lakes. For example, water may seep out of a river, stream or small lake to recharge the groundwater which is subsequently lost to evaporation and in so doing never reaching the Great Lakes. The diversion of that particular groundwater may have no effect whatsoever on the amount of water in the Great Lakes.

Question 3. Could one greatly affect the flow in Great Lakes tributaries by diverting groundwater before it reaches springs or otherwise feeds streams that flow into the Great Lakes?

Response. As a practical matter, because the sources of water for tributaries are made up of so much more than groundwater inflow (particularly in the Great Lakes region) it is unlikely that any diversion of groundwater could "greatly" affect the flow in a tributary. Whatever effect that a groundwater diversion would have on a tributary would generally be localized in effect.

Question 4. Could one, by pumping water out of the Basin, actually reverse the flow of water in tributaries to the Great Lakes?

Response. The practical answer is, no. However, this effect could possibly be achieved on a very localized level under very special conditions. For example, for the effect to be achievable, the tributary flow must be very small, the elevation of the bottom of the tributary must be lower than the water surface elevation of the lake and the rate of pumped water must be much greater than the flow in the tributary that is running toward the lake.

Question 5. If one chose to dig a well 100 feet from the shoreline of a Great Lake and began pumping groundwater out at rates exceeding five million gallons per day and transferring it to a watershed outside the Great Lakes Basin, how would the Corps apply Section 1109 if a wetland or other permit from the Corps were necessary?

Response. First, it is important to note that, generally, the Corps has no jurisdiction over the pumping of groundwater (to a location either into or out of the Great Lakes Basin). It is our view that the regulation of groundwater is generally a matter entrusted to the States.

However, if a pumping project were to require a Corps permit for some other reason (such as wetland fill or construction work in a navigable water), we would apply Section 1109 of the Water Resources Development Act of 1986. As a general proposition, it is the Corps position that the primary administration of Section 1109 is within the jurisdiction of the Great Lakes States Governors. We would notify the Great Lakes Governors of the project so that they could exercise any authority that they may have under Section 1109.

Also, to the extent appropriate under our permit evaluation procedures, we would consider the effects of the groundwater diversion in determining whether issuing a permit would be in the public interest and, if the permit were to be issued, what special conditions would be appropriate to mitigate or alleviate the adverse effects of the groundwater diversion. It is important to note that while §1109 does not bear directly on our permit decision, the effects of a proposed project on the groundwater regime and on the Great Lakes could well influence our decision to issue a permit. We would also take into consideration the views of the Great Lakes Governors as to the beneficial and adverse effects of the proposed project, including any diversions of groundwater. The applicant would be responsible for obtaining any other required

license, permit or authorization, including consent of the Great Lakes Governors under Section 1109 if necessary.

Question 6. Finally, does the Corps believe that there is a hydrologically definable and recognized unit commonly referred to as the Great lakes Basin? Could the Corps please provide the committee with its understanding of what constitutes the Great lakes Basin from a hydrological perspective?

Response. Yes. The Great Lakes Basin is the closed area bounded by the watershed that is the demarcation of where the surface water generally flows toward or into one of the Great Lakes. The term Great Lakes Basin, as used in its common and engineering senses, refers to the drainage of surface water but not to ground-water and aquifers.

RESPONSES OF DR. JOSEPH W. WESTPHAL TO ADDITIONAL QUESTIONS FROM
SENATOR BOB GRAHAM

Question 1. Please identify the entire authorization that would be required to begin work on all 35 critical projects under the South Florida ecosystem restoration program. Also, please provide an estimate of the entire authorization that would be required to complete work on all 35 critical projects.

Response. Based on preliminary cost information, the Corps Jacksonville District reports that the estimated costs to complete the identified 35 critical projects is \$300,000,000 with the Federal cost share estimated to be \$150,000,000 and the non-Federal cost share estimated to be \$150,000,000. This would mean that the authorization in Section 528 of the Water Resources Development Act of 1996 would have to be increased from \$75,000,000 to \$150,000,000 to fund the Federal share of the 35 critical projects.

Question 2. Please explain how the "Challenge 21" program will be used in conjunction with the current civil works program. For example, projects are now specifically authorized and funded by Congress. If a flood control project is authorized by Congress, does the Administration determine in the feasibility study if the "Challenge 21" criteria should be applied or if a more standard structural solution is required? Does the Administration limit projects it would consider to projects that do not have specific congressional authorizations or does it look at projects that have already been authorized and then seek to apply "Challenge 21" criteria? Specifically explain how the "Challenge 21" program will mesh with the existing Corps program. Also, explain how the "Challenge 21" program will be managed by the Corps.

Response. *Challenge 21* will provide a much needed tool to develop projects for situations in which ecosystem restoration is an integral part of solving flood problems. *Challenge 21* projects would not include projects already specifically authorized by Congress. The program will be a vital part of the Corps program by focusing on areas where nonstructural solutions (primarily floodplain evacuation) are likely to be an effective solution to flood problems and where the evacuated floodplains can be restored to natural riverine conditions. These areas have often been overlooked in traditional Corps studies.

With respect to program management, the *Challenge 21* program will be managed by my office in cooperation with Corps Headquarters. Individual studies, designs and construction activities will be managed by the responsible Corps District together with the non-Federal sponsor and cooperating Federal and State agencies. Given the nonstructural/environmental emphasis of this program, additional procedures and guidance will have to be developed for project selections and evaluation. Prior to implementation, the proposed projects would be subject to the normal project review and approval process and notification of appropriate congressional committees.

RESPONSES OF DR. JOSEPH W. WESTPHAL TO ADDITIONAL QUESTIONS FROM SENATOR
BOXER

AMERICAN RIVER WATERSHED FLOOD CONTROL PROJECT

Question 1. The American River project in the Administration's bill calls for raising and strengthening the downstream levees on the American River. Based on the Corps' engineering experience, do you believe the Corps can safely construct the Stepped Release Plan to provide the intended level of flood protection?

Response. Yes. The Corps has much experience in the design and construction of flood control projects. The project would contain a flood with a release rate of

180,000 cubic feet per second from Folsom Dam with a very high degree of confidence.

Question 2. Can the Corps safely construct the Stepped Release Plan with the same degree of certainty afforded other projects nationwide?

Response. Yes. There is no question that the Corps has much experience in the design and construction of flood control projects, and when completed the project would afford the same high degree of certainty to contain the design flood as provided in other parts of the country.

Question 3. What is the approximate probability of the levee works of the Stepped Release Plan to withstand their designed flow capacity of 180,000 cubic feet per second?

Response. The flow of 180,000 cubic feet per second would be the maximum objective release from the Folsom Dam under the "Stepped Release Plan." The probability of the levees passing this flow is very high. The Corps has much experience in levee design and would design the levees to pass this amount of water in a safe and reliable fashion.

Question 4. What is the probability of the Auburn Dam alternative passing the 400-year storm event for which it is designed? Is that the same as the probability of the Stepped Release Plan? Is that the same as the probability of Sacramento's current flood control system?

Response. The reliability of a plan, or the plan's performance if a specific frequency flood occurs, can be evaluated by calculating the range of possible discharges for the stated frequency flood and accounts for engineering and operational uncertainties. If it could be implemented, the alternative capable of providing the highest level of flood protection to the flood prone areas along the American River is the Auburn Dry Detention Dam. This is the plan identified by the Sacramento District as the NED plan. Comparing the stated design frequency of the SIR Stepped Release Plan (160-year level of protection), SAFCA plan (150 to 155-year level of protection), and Auburn Dam (400-year level of protection), they have a 60 percent, 57 percent, and 62 percent chance of containing that design event, respectively. The current flood control system has about a 60 percent chance of containing its 77-year design event.

Question 5. I understand that the Corps and the Office of Management and Budget are preparing a proposal on a way to finance navigation and other improvements at our major ports dealing with international trade. Will this plan include assistance to medium-size ports and small craft harbors which contribute to regional economic development?

Response. The proposal is currently being formulated to address the navigation needs of all these ports, including medium-sized and small harbors. The Administration understands that a healthy port system plays an important role in ensuring a strong national economy. Moreover, the Administration believes that users of the network of U.S. ports served by Federal channel and harbor projects should continue to be responsible for the costs of ensuring a safe, reliable and efficient port system and that all user contributions should be applied to providing needed services.

In considering a legislative proposal to repeal and replace the Harbor Maintenance Tax, the Administration established several principles to ensure that the proposal is constitutional, equitable, and will be sufficient to finance harbor activities. The proposal for a new Harbor Services User Fee was structured so that the user fee:

- Satisfies the Supreme Court test for constitutionality.
- Establishes a close link between revenue collected and services provided to vessels.
- Is consistent with the General Agreement on Tariffs and Trade (GATT) and other U.S. international obligations.
- Is formulated on a nationwide basis.
- Causes no significant alteration of the existing competitive balance among U.S. ports.
- Supports U.S. Army Corps of Engineers operation and maintenance activities funded through the current Harbor Maintenance Tax, and harbor construction activities.

It is important that such a user fee be formulated on a nationwide system basis so as to not significantly alter the existing competitive balance among U.S. ports, nor measurably impact U.S. international and domestic trade. The new user fee should not only support the operation and maintenance (O&M) activities of the Corps of Engineers and the other O&M costs currently recovered from the existing

Harbor Maintenance Trust Fund, but it should also fund the Federal share of Corps port construction activities, such as port deepening projects. Expanding the uses of fee revenues to include Federal port construction projects recognizes that the services provided by the U.S. port system require adequate and continual investment in new construction.

The Administration proposes to establish a user fee to be paid by the primary users of Federal channel and harbor projects, namely the commercial vessel owners/operators. The imposed fee will be based upon the provided services of Federal channels and harbor projects. Ship size, movement frequency, and the operational characteristics of particular vessel categories were the principal factors used to measure the provided services. Ship size is a key factor in measuring the extent of use and service from channels.

The Army is currently reviewing this proposal with interested parties to gain their input. The Army will soon transmit a formal Administration proposal to Congress for its consideration. The congressional legislative process will, of course, offer additional opportunities for discussion and comment as the legislation moves forward. I look forward to working with you and other members of the subcommittee as we formulate this proposal.

Question 6. The California Maritime Infrastructure Bank holds significant promise as providing the kind of financing boost that these smaller ports need. Other States have similar financing mechanisms by using revolving loan programs. Would you be willing to work with this subcommittee on ways that we can also help our ports and small-craft harbors that would be left out of the Administration's proposal?

Response. I would be happy to work with the subcommittee on possible proposals for smaller ports and small craft harbors.

PREPARED STATEMENT OF KURT J. NAGLE, PRESIDENT, AMERICAN ASSOCIATION OF
PORT AUTHORITIES

INTRODUCTION

Good morning. I am Kurt Nagle, President of the American Association of Port Authorities (AAPA). Founded in 1912, AAPA represents virtually every U.S. public port agency, as well as the major port agencies in Canada, Latin America and the Caribbean. Our Association members are public entities mandated by law to serve public purposes primarily the facilitation of waterborne commerce and the generation of local and regional economic growth. My testimony today reflects the views of the AAPA's United States delegation.

Mr. Chairman, AAPA commends you for convening this hearing on the Water Resources Development Act of 1998. We are very grateful to this committee for its hard work that led to enactment of the Water Resources Development Act of 1996. Passage of WRDA 1996 was a great relief for public ports in gaining project authorizations and significant policy improvements after the Senate was unable to join the House in passing a WRDA bill in 1994. Again, we appreciate the strong leadership this subcommittee has shown in supporting sound water resources policy and investment.

If I leave one message with you today, it is that ports, and all who benefit from the services we provide, depend on regular biennial passage of the Water Resources Development Act, as well as continued adequate annual appropriations levels. Navigation projects are our Nation's highways to the international marketplace. Since WRDA 1986, the Federal investment in improvements to our Nation's navigation infrastructure is matched by a local share that varies depending on the depth of the project. There is also a very substantial additional local investment in landside terminal facilities. These investments generate significant economic returns at the local, regional and national levels. All of the benefits that justify inclusion of navigation projects in the water resources bill are national economic development benefits.

Our water highways are national assets that serve a broad range of economic and strategic interests. Ports' activities link every community in our Nation to the world marketplace enabling us to create export opportunities and to deliver imported goods more inexpensively to consumers across the Nation. The deep-draft commercial ports of the U.S. handle over 95 percent of the volume and 75 percent of the value of cargo moving in and out of the Nation. Port activities create substantial economic and trade benefits for the Nation, as well as for the local port community

and regional economies. The following statistics highlight how critical ports are in facilitating national economic activity:¹

- U.S. Customs duty revenues totaling approximately \$15.6 billion were paid into the general treasury in fiscal year 1996 on cargo moved through ports.
- Our Nation's commercial deep draft ports annually handle in excess of \$600 billion in international trade.
- Foreign trade is an increasingly important part of the U.S. economy, currently accounting for over 30 percent of our Gross Domestic Product. U.S. exports and imports are projected to increase in value from \$454 billion in 1990 to \$1.6 trillion in 2010. The volume of cargo is projected to increase from 875 million to 1.5 billion metric tons in 2010.
- The overall national economic impact of port activities in 1994 generated:
 - 16 million jobs;
 - \$783.3 billion to the Gross Domestic Product; and
 - \$210.1 billion in taxes at all levels of government.

As I have indicated, these national economic benefits are generated as the result of the local investment by ports in modern marine terminal facilities and related infrastructure in combination with Federal investments in the navigation channels. In 1996, the cumulative local investment in port facilities was \$1.3 billion; a similar level of non-Federal investment is expected each year from 1997 to 2001.²

We should also not lose sight of the fact that the ports continue to play a very critical role in our Nation's defense. That role has never been more apparent than during the loadouts of military cargo and personnel during Operation Desert Shield/Desert Storm. The huge buildup of U.S. forces in and around the Persian Gulf would have been impossible without the modern facilities and strong support provided by America's ports. According to the U.S. Military Traffic Management Command (MTMC), between August 1990 and March 1991, MTMC loaded 312 vessels and more than 4.2 million measurement tons of cargo in 18 U.S. ports for delivery to the Persian Gulf in support of Desert Shield/Desert Storm. More than 50 ports have agreements with the Federal Government to provide ready access for national emergency purposes.

In my testimony today, in addition to stressing the importance of passing a water resources bill this year, I want to stress four points:

- The need to continue to review and improve the partnership between the Corps of Engineers and the ports forged in WRDA 86;
- The port industry's alarm at the President's fiscal year 1999 budget request as it relates to investment in our Nation's deep-draft harbors;
- The need to ensure continued funding for maintenance dredging in light of the Supreme Court decision that the Harbor Maintenance Tax is unconstitutional as it is applied to exports; and,
- The need to continue to review and improve dredged material management policies and practices to avoid costly delays in dredging projects, ensure protection of the environment, and gain additional benefits to the Nation.

PROJECT PARTNERSHIP

There has been a Federal/port partnership in the development of our Nation's port system virtually since our country's birth. U.S. public ports are varied, but generally act as semi-autonomous authorities. Local, state-wide or regional ports are responsible for investment, development and operation of marine terminal facilities. Ports are also responsible for dredging of berthing areas and access channels connecting the port facilities to Federal navigation channels. While it had historically funded 100 percent of navigation channel improvement and maintenance, since 1986 the Federal role of the partnership has been limited to cost-sharing capital improvements to Federal navigation channels.

Ports have made substantial investments of local funds in landside port facilities which will be jeopardized if the Federal Government fails to live up to its part of the Federal/port partnership. Local public ports have spent more than \$16.8 billion since World War II to develop landside facilities. Local ports make commitments to our private sector customers to provide state-of-the-art facilities and equipment to serve the demand of the marketplace. Public port and private investment in marine terminal facilities will be wasted if access to ports via navigation channels is constrained.

¹ Source: U.S. Maritime Administration.

² *United States Port Development Expenditure Report*, U.S. Maritime Administration, October 1997.

The task of meeting the present and expected future demands on our navigation system has never been so complex, and never as much in the public spotlight as it is today. I have outlined below some of the key changes which, if implemented, will help us to meet those demands.

Need to Authorize Navigation Projects. The enactment of the Water Resources Development Act and Federal investment in navigation is of critical importance to the Nation's economy. There are fewer navigation projects today, but they are equally important, if not more critical, in today's rapidly changing world for ports big and small. If projects are not authorized, the national benefits, as well as regional economic diversification and job creation opportunities, will be delayed.

Important projects are finishing the planning process and will require authorization for construction, including but not limited to improvements at ports in Baltimore Harbor, MD; Brunswick and Savannah, GA; Jacksonville and Tampa, FL; Oakland, CA; and, the Columbia River, OR and WA. Other projects, including those in New York/New Jersey will require modifications. This list is not intended to be exclusive, but only illustrative of the importance of a water resources bill to a broad cross-section of ports across the country.

Need to Accommodate Larger Vessels. A recent report prepared by the U.S. Maritime Administration documents the status and trends of general cargo ship design and its impact on transportation infrastructure.³ The report finds that the rate of growth in containerized cargo in the U.S. is at 6 percent per year, and predicts that by 2010 nearly 90 percent of general cargo will be shipped in containers and that nearly 33 percent of those containers will be transported on vessels carrying more than 4,000 twenty-foot equivalent container units (TEUs). Such vessels, commonly referred to as "megaships" are a key element in the strategies of the world's leading steamship carriers as they seek to optimize operations through global alliances. These large vessels obviously pose major challenges to ports because of their size and the potentially large number of containers they could discharge or load during any one port call. Key requirements obviously will include suitable terminal facilities, as well as deeper channels, berths, container yards, and rail and highway access.

Prior to 1986, a channel depth of 45 feet would accommodate almost all of the container ships in the world's fleets. The Clarkson Containership Register indicates that most of the container ships in 1986 had maximum capacities of less than 3,000 TEUs of containerized cargo with average drafts of about 38 feet. There were only a few larger container vessels with capacities over 3,000 TEUs which were built to the maximum size that could be handled by the Panama Canal. Most of these panamax vessels had drafts of 41.6 feet or greater. Vessels with these drafts cannot use a 45 foot deep channel when fully loaded.

In the years since 1986, the containership fleet has undergone a major evolution. The world's major ocean carriers have greatly increased the size of the ships and the number of large ships they use. In 1988, a new class of post-panamax ships was introduced into the world's container shipping fleet. Today there are about 60 of these large ships with an equal number more on order. The post-panamax ships have a capacity of 6,000 or more TEUs with even larger ships being designed and built. These vessels are generally wider than can be handled in the Panama Canal. They also have deeper drafts. The average draft of the current post-panamax ships is 42.9 feet. The largest ships have drafts of about 45.5 feet, which require channels that are at least 50 feet deep. An analysis contained in the Maritime Administration report cited earlier suggests naval architecture constraints on ships as large as 15,000 TEUs would not result in drafts much greater than 46 feet. Thus, with allowances for under-keel clearance, vertical ship movement (squat), and uncertainty in predictions of future ship design, AAPA believes the norm for general cargo navigation channels will be as great as 53 feet.

In WRDA 1986, Congress created a cost-sharing formula for navigation improvement projects based on the needs of the general cargo fleet at that time. Specifically, a cost-sharing transition was set at 45 feet, above which (i.e., shallower) local sponsors would pay a 35 percent (25 percent plus 10 percent over 30 years) cost-share and below which (i.e., deeper) would be cost shared at 60 percent (50 percent plus 10 percent over 30 years) local. According to the legislative history for WRDA 1986, the rationale for setting 45 feet as the transition to significantly greater local participation was that,

The committee has surveyed the manner of financing navigation projects in most developed countries. Based upon this survey the committee found that

³ *The Impacts of Changes in Ship Design on Transportation Infrastructure and Operations*, U.S. Maritime Administration, February 1998.

most of the national Governments in those countries financed general navigation improvements, including main and entrance channels to a depth of 45 feet to accommodate general cargo vessels (emphasis added). This assistance is normally justified on the basis of national and regional economic development. At the same time, most of these countries require local contribution to the cost of construction and maintenance of navigation projects in excess of that depth to accommodate larger, specialized vessels increasingly operating in liquid and dry bulk trades.

The bill, as reported, applies this experience by reconciling national investment policy toward future port development with prevailing international practice. This is accomplished through the establishment of 45 feet as the maximum standard depth for ports not designed to accommodate deep draft vessels, and the declaration of channel depths in excess of 45 feet as "deep draft ports." A graduated scale for the local contribution to the cost of project construction depending upon depth culminates in a 50:50 Federal/local cost-sharing formula for deep-draft navigation projects.

AAPA believes the Congress should revise the cost-sharing formula to adjust the upper cost-sharing threshold to reflect the changes that have occurred in the general cargo fleet.

Cost Sharing for Maintenance Dredging. WRDA 1986 requires that local sponsors cost-share the increased cost of maintenance dredging for the increment over 45 feet. In practice, calculating the increased cost is highly uncertain. As described below, when passed in 1986 the Harbor Maintenance Trust Fund (HMTF) paid only 40 percent of maintenance dredging costs; since 1990 the HMTF has paid 100 percent of such costs.

AAPA recommends that Congress remove the requirement to cost-share the cost of maintenance dredging in projects greater than 45 feet because: (1) the increased cost is difficult to calculate; (2) it generates very little money; and (3) the HMF currently covers 100 percent of maintenance dredging costs.

Port/Corps Partnership. Since the enactment of WRDA 1986, the ports share the cost of construction of navigation projects and have embarked on a "partnership" with the Corps in development of the Federal navigation system. Although some significant progress has been made on that partnership, there remain impediments to efficient execution of project planning, design and construction.

While WRDA 1986 allows local sponsors to receive a credit for in-kind services up to 50 percent of their share of feasibility study costs, there is no such provision for crediting in-kind services during preliminary engineering and design (PED) or during construction. However, under current practice, and especially with more feasibility studies being led by a local sponsor under Section 203 of WRDA 1986, ports have certain expertise that can help projects move forward more efficiently. This efficiency can only be realized if the port can receive credit for such services against the contribution to project construction. Thus, AAPA recommends that Congress amend the cost-sharing provisions to allow local sponsors to credit in-kind PED and construction services against their share of construction costs.

Cost Recovery. Another issue that deserves the attention of the committee is the limits under Section 208 of WRDA 1986 that are placed on the ability of local sponsors to recover their non-Federal share of the project costs. This provision so narrowly defines the potential eligible channel users that may be subject to cost recovery so as to effectively make it impossible for local sponsors to use the authority. Ports need a broad-based capacity to collect cost recovery for the non-Federal share. AAPA recommends that Congress revise Section 208 to provide ports greater flexibility in recovering the cost of navigation improvement projects.

FISCAL YEAR 1999 APPROPRIATIONS

Although today the committee is focusing on water resource project authorizations, it is equally important to ensure that adequate appropriations are provided for improvement and maintenance of the Nation's water transportation infrastructure. Ports and their customers in the carrier, shipper, labor and commercial communities must be able to rely on the continued involvement of the Federal Government in building and maintaining a safe and efficient navigation system. AAPA and its member ports around the country are deeply concerned that the President's proposed budget for fiscal year 1999 did not provide for sufficient investment in our commercial navigation system, and that funds are being diverted from navigation projects to pay for other Administration priorities, including new programs. We are pleased that the Senate and the House have increased the funding levels from the Administration proposal, but it is still not enough.

The Administration budget requested fiscal year 1999 appropriations of \$3.215 billion for the Corps of Engineers Civil Works Program. This level represents a 21 percent cut from fiscal year 1998 appropriated levels, and only 70 percent of what is needed to maintain project schedules and begin additional new projects. While we are also concerned about the level of proposed funding for operation and maintenance and for conducting studies, we are most concerned about the proposed Corps budget for the Construction, General account, which received the largest cuts. The Construction, General account, which provides the funding for investment in our Nation's water resources, was subject to a 47 percent cut compared to fiscal 1998 appropriated levels (\$784 million v. \$1.47 billion). This level represents only 43 percent of the necessary funding requirement, which would be \$1.82 billion, to maintain project schedules and begin additional new construction. Only 2 of 50 congressionally added projects in the fiscal year 1998 appropriation were picked up in the Administration's fiscal year 1999 budget. The proposal seeks eight new starts, as opposed to the 24 new starts recommended by the Corps, totaling \$16.1 million, none of which are navigation projects.

In terms of deep-draft harbors, which provide the gateways for more than 95 percent of our Nation's growing import and export trade, this budget seeks only \$40 million in fiscal year 1999. This amount is less than half of what the Administration sought for deep-draft harbor construction in fiscal year 1998 (\$108 million); it's less than one-third of what Congress appropriated in fiscal year 1998 (\$132 million); and, it's only one-tenth of what is needed to fund ongoing and authorized new projects (\$328 million).

On June 4, the Senate Appropriations Committee marked up the Corps of Engineers fiscal year 1999 budget. The total funding level of \$3.8 billion is disappointing, considering the Senate Budget resolution specifically indicated that Corps programs should be level-funded at last year's levels (\$4.1 billion). The Senate levels are 17 percent greater than the President's fiscal year 1999 request, 17 percent less than the fiscal year 1999 requirement, and 7 percent less than fiscal year 1998 appropriated levels.

Under the Senate bill, deep-draft harbor projects would receive \$180.3 million compared to the \$39 million requested by the President and the \$132 million appropriated in fiscal year 1998. Unfortunately, this level is still approximately half of what is needed in fiscal year 1999 to keep projects on schedule and to start necessary new projects.

Without additional funding, next year a number of ongoing projects will not be able to maintain contractual obligations. This will force work to come to a halt and increase project costs by having contractors demobilize their equipment. In recent testimony at a Senate Appropriations Subcommittee hearing, the Corps of Engineers estimated that the Administration's proposed cuts in the Construction, General account will result in an additional \$400 million in increased costs over the life of the projects and \$3.6 billion in lost economic benefits. Several navigation projects that have substantial environmental features, including the creation of thousands of acres of wildlife habitat using dredged material, would not proceed under the proposed funding levels.

Since the enactment of WRDA 1986, our experience indicates that we have made significant progress in advancing real partnerships between the Corps and local sponsors on navigation projects. Existing mechanisms in WRDA 1986 provided by Sections 203, 204, and 205 were intended to expedite Federal navigation projects by permitting the sponsor to formulate and construct the project and subsequently seek reimbursement from Congress. While these provisions were not widely used, recent progress in the dialog between the Corps and the port community has clarified a number of concerns related to the roles and responsibilities of the Corps and the local sponsor and, so, the number of projects using these authorities is growing. Use of these authorities has saved both money and time. Unfortunately, the Office of Management and Budget has announced several policy changes that raise great concern as to whether there is a commitment to seeking reimbursement for work undertaken by the local sponsor. These policy changes include prohibitions against multi-year contracting for all fiscal year 1998 new starts and against Section 11 funding agreements. There is also uncertainty about whether OMB will permit local sponsors to provide more of their cost share earlier in the project to make up for any Federal funding shortfall. These policies will have a chilling effect on the further use of innovative partnership tools like Sections 11, 203, 204 and 205 which were created by Congress to facilitate the program.

We understand the Congress is faced with difficult budget decisions, but this country cannot afford to make the mistake of shortchanging our Nation's economic competitiveness and opportunity by failing to provide for continued improvement and maintenance of our Federal navigation system. Ports and navigation channels

are critical links in the intermodal transportation chain. Failure to continue to invest in all aspects of this transportation system will have serious long-term economic consequences. Clearly, the proposed Administration budget for Federal involvement in the Nation's water transportation system is seriously flawed and must be corrected by this Congress. We ask this committee's support in making that happen.

HARBOR MAINTENANCE TRUST FUND

Of all the issues facing most public port authorities, few are more critical than funding for Federal navigation channels, whether for maintenance of existing channel depths or funding new construction dredging projects. That is why the follow-up to the Supreme Court decision on the Harbor Maintenance Tax (HMT) and the passage of the Water Resources Development Act (WRDA) of 1998 are so important to U.S. ports.

Although the Federal Government traditionally funded both maintenance dredging and improvements to Federal navigation channels from General Treasury revenues, in 1986 Congress created the Harbor Maintenance Trust Fund to pay for a portion of channel maintenance dredging. Congress instituted the HMT and cost-sharing reforms after a lengthy impasse over water resources development policy. The HMT was enacted in an effort to recover the cost of maintenance dredging from navigation channel users.

The Supreme Court decision has set the stage for a new solution. AAPA members believe that, as was the case before 1986, maintenance dredging should be funded from general revenues. There is no user-fee system that can equitably raise revenues from the users of navigation channels in reasonable relation to the distribution of benefits to the Nation.

Many options were considered in developing the ad valorem HMT funding mechanism for maintenance dredging. Unfortunately, the only option to survive the debates from 1981 to 1986, the HMT, was found unconstitutional by the Supreme Court. It does not appear that there are significant new or old options that would work better today.

The assessment of a tonnage fee on cargo or vessels would severely affect bulk commodities, such as grain or coal, which compete in international markets where pennies a ton can make or break a sale. These shipments, which are amongst our Nation's leading export products, now use the most cost-effective route typically moving by barges down rivers to coastal harbors. Those harbors, in turn, tend to require significant maintenance dredging because of the river sediment. In general, dredging demands related to the shipping of these types of export products are greater than those related to import products.

Another alternative considered would have required local ports to raise their own funding for maintenance dredging. Such a change could pit U.S. ports against each other, the result of which could impact commerce and national security. Like a tonnage tax, local funding, if passed on to port users, could increase transportation costs, pricing bulk commodities out of international markets either through increased charges at the currently utilized port(s) or by increasing inland transportation costs due to diversion from the inland waterway system.

The concept also alters the fundamental Federal role in maintaining the national navigation system. As noted earlier, relying in good faith on this long-standing partnership, local ports have invested, and continue to invest, significant amounts to construct and maintain landside facilities. These local investments have created the system of ports the Nation depends on to meet the needs of its national defense and growing international trade.

Recognizing that these options could be injurious to the Nation's trading position, and to individual ports, Congress in 1986 chose to enact a uniform ad valorem tax on cargo in an attempt not to affect the competitive position of any port. Congress intended to minimize the potential negative effect on export competitiveness, and minimize the diversion problem by setting the fee fairly low, at a level to collect 40 percent of the dredging costs. However, in the 1990 budget agreement, Congress tripled the fee, and a \$1.2 billion surplus has accumulated in the trust fund. Prior to the Supreme Court decision, the surplus had been expected to reach nearly \$2 billion by the end of fiscal 1999.

The HMT ultimately added hundreds of dollars to the cost of shipping a single container of high value cargo, and has caused traffic to be diverted to non-U.S. ports to avoid payment.

Other options for raising revenue from direct users of the navigation channels are not likely to produce sufficient funds. In addition, direct navigation users are already significantly taxed. A 1993 General Accounting Office study found that 12

Federal agencies levy 117 assessments on waterborne trade. In 1996, receipts from these fees were 154 percent of the level raised only 10 years earlier, making our exports more expensive and less competitive in international markets.

Customs revenues in fiscal year 1996 totaled \$22.3 billion, of which roughly 70 percent (or \$15.6 billion) is attributable to cargo moving through seaports. These funds, currently collected from users of navigation channels, are more than 31 times greater than the cost of maintenance dredging (approximately \$500 million). Expected increases in customs collections due to increased trade would likely be enough to pay for maintenance dredging.

The benefits of safe and efficient trade provided by our Nation's system of navigation channels are spread throughout the country. In addition, the benefits to the Nation resulting from national defense, commercial fishing, and recreational users are immeasurable; assessing fees on these users, however, was not part of the 1986 HMT funding mechanism. Both economically and strategically, there are no greater assets than our ports and Federal navigation channels or water connections to the global marketplace and means of national defense. The costs for dredging should be spread across the whole Nation because all our citizens benefit.

AAPA members look forward to working with the Administration and Congress to come up with equitable solutions to the funding challenges which we face.

DREDGED MATERIAL MANAGEMENT

In 1993, the maritime, port, labor, and business communities called for the adoption of a National Dredging Policy to facilitate the timely and cost-effective dredging of our Nation's navigation channels. Dredging the Nation's navigation channels to keep them open for trade is too often frustrated by inconsistent, complex and duplicative laws and regulations. In the time that we have been working with the Congress and the Administration to establish a National Dredging Policy, great strides have been made to clarify, streamline and simplify the navigation dredging process.

Probably the most significant accomplishment in advancing the goals of a National Dredging Policy occurred with the passage of provisions in the WRDA 1996 to provide for Federal participation in the establishment and operation of confined disposal facilities. AAPA and the port community recognize the hard work provided by the subcommittee in moving a WRDA bill last Congress, and especially the provision on cost sharing for confined disposal. AAPA supported this provision because previous policy tended to provide an economic incentive for open water disposal over confined or upland disposal options. While AAPA believes that open water disposal must continue to be a viable option, this change allows the Corps to consider all alternatives on an equal basis. However, AAPA is concerned that much work still needs to be done to improve the dredging process. Impediments still exist with the regulatory review process, contaminated sediment, and beneficial uses of dredged material.

Regulatory Review Process. In December 1994, the Administration released the Interagency Report on Improving the Dredging Process. The agencies involved in preparing that report continue to work through the National Dredging Team to improve coordination and cooperation in the planning and regulation of dredging projects. AAPA fully supports this effort and is working closely with the National Dredging Team to ensure that port industry concerns are provided to the agencies for their consideration.

AAPA is very concerned about regulations recently issued by the National Marine Fisheries Service (NMFS), under 1996 amendments to the Magnuson-Stevens Fisheries Act, regarding the protection of essential fish habitat (EFH). Federal activities, including issuing permits, that may impact essential fish habitat must be reviewed by NMFS. Under the regulations, it is very likely that broad expanses of the aquatic environment will be designated EFH. (The draft EFH for salmon would designate the entire North Pacific coast of the U.S. from the shore out 46 miles.) Any proposed activity that may impact EFH would be required to prepare an EFH assessment. We are very concerned that this new requirement to prepare EFH assessments will increase project costs and cause additional delays. We have urged the NMFS to work with the Corps and the port industry to develop streamlined review procedures for activities already regulated under the Clean Water Act or the Marine Protection, Research and Sanctuaries Act such as dredging projects with disposal at designated disposal sites.

One remaining legislative goal of the proposed National Dredging Policy is to amend the Clean Water Act (CWA) and the Marine Protection, Research and Sanctuaries Act to provide for consistent and expedited review of all dredging and disposal alternatives, separate from the 404 wetlands provisions of the CWA, and for consideration of relative costs, risks and benefits of each alternative. Additional

changes should be considered to emphasize prevention of pollution that contaminates sediments, and to require full consideration of the use and value of the waters and channels to navigation in establishing appropriate criteria and standards. AAPA appreciates the efforts by the subcommittee to address some of these issues in the last Congress, and looks forward to working with this committee as it considers changes to the CWA and other environmental laws.

Contaminated Sediments and Beneficial Uses. Contaminated sediments are a problem that requires strong partnerships if we are to effectively meet the needs of maintaining an efficient navigation system and a healthy environment. Recently, the pendulum has moved toward greater regulation of dredging projects. In 1991, the U.S. Environmental Protection Agency (EPA) tightened its standards for the ocean disposal of dredged material; the result was a significantly greater amount of material being found unsuitable for disposal in the ocean. Last summer, EPA closed the ocean disposal site outside of New York Harbor for the disposal of most dredged material from the harbor. In addition, States are more aggressively using their CWA water quality certification and Coastal Zone Management consistency authorities to make extensive demands for only marginal or speculative environmental benefits. We agree it is important to ensure the protection of the State prerogative, but we must ensure that the limited Federal and local resources available for dredging projects achieve the greatest benefits and minimize real environmental risk.

As part of the plan to close the NY Harbor ocean disposal site, the Administration announced its intention to establish a process to review the ocean dumping testing requirements in a manner that includes all stakeholders. AAPA and its member ports have cooperated with the contractor hired by the EPA to scope out this process. While AAPA believes it is necessary to periodically review the adequacy of dredged material regulation, we do not believe that this review should be an opportunity to further restrict ocean disposal. AAPA is committed to the development of a dredged material regulatory framework that equally considers all disposal alternatives using decision tools that consider risks, benefits and costs of each alternative. The public port industry will participate in whatever process the EPA arrives at, with all stakeholders, to ensure that the testing program is fair, efficient, and scientifically sound.

However, we believe the focus of the Federal and State governments should be first and foremost on pollution prevention, the control of polluted runoff into our Nation's waterways, and the cleanup of historically contaminated sediments. Contaminants in polluted runoff and historically contaminated areas are often transported into our ports and harbors. AAPA supports the efforts of this subcommittee in trying to focus attention in the Clean Water Act on the control of nonpoint polluted runoff and hotspots. We simply must control these sources of pollution in order to ever have hope to be able to clean up sediments in navigation channels.

We recognize that the subcommittee has sought to address the problem of historically contaminated sediment by providing the Corps with authority to dredge outside a navigation channel to remove and remediate contaminated sediment that contributes to contamination of the navigation project. However, this provision has not been used in cleaning up historically contaminated areas. AAPA is working with its member ports and the Corps and other Federal agencies to explore the whole range of authorities and regulations that bear on cleaning up historically contaminated sediment. It appears a combination of administrative and legislative changes may be needed to achieve the goal of cleaning up contaminated sediment sites in an economical and equitable way. Under the right circumstances, ports have been partners in the cleanup of contaminated sediment and brownfield sites while spurring economic development. Such formulas for win-win situations need to be found and replicated in the future. AAPA supports the work of this subcommittee to move Superfund reform legislation that provides greater flexibility in revitalizing brownfield sites.

A recent National Research Council report entitled "Contaminated Sediments in Ports and Waterways, Cleanup Strategies and Technologies" may provide a road map for such administrative and legislative changes. For example, the report recommends the increased use of risk-based decisionmaking and full consideration of all sediment contamination remediation options including containment. In addition, the report suggests that cleanup dredging projects may not be occurring because of concerns that future liability for contaminants in sediment may transfer to the port or the Corps if contaminated sediment from a cleanup project is placed in a confined disposal facility constructed for navigational dredged material. AAPA encourages the subcommittee to consider holding a hearing on the findings of the NRC report to determine if there are any regulatory or institutional barriers to the efficient identification and management of contaminated sediments.

The WRDA 1996 contained a provision, Section 217, that allows for private interests to construct disposal facilities for dredged material and to charge the Corps a tipping fee for placement of disposal in such facilities. AAPA believes that this provision could provide the private sector an incentive to develop innovative disposal strategies, such as the creation of wetlands using dredged material for mitigation banks. Another innovative strategy, which may be realized soon because of research conducted by the Corps, is the processing of dredged material into useful products such as manufactured soil, road-bed aggregate, or even bricks. If a market were developed for these products, the private sector could build processing facilities and take dredged material from the Corps under Section 217. AAPA is reviewing this approach with the Corps of Engineers to see if there are any regulatory or institutional barriers inhibiting the private sector from acting in this area. AAPA would like to work with the Administration and the Congress to refine any policies that may be inhibiting economically viable beneficial uses of dredged material. We must continue development of more efficient and effective approaches to provide for our mutual goals of economic development and environmental protection.

CONCLUSION

Thank you for the opportunity to testify today. To ensure our Nation's continued international competitiveness, it is now more important than ever to continue to invest in an improved and efficient water transportation system. We are extremely grateful to the subcommittee for the important work it did on WRDA 1986 and the subsequent biennial authorization bills. Again, I cannot emphasize strongly enough AAPA's support for action this year on a water resources bill and a continued regular authorization cycle. We look forward to working closely with the committee as you draft and enact the Water Resources Development Act of 1998.

RESPONSES BY KURT NAGLE TO QUESTIONS FROM SENATOR CHAFEE

Question 1. Tell me why you believe (as you said in your testimony) that, “. . . there is no user fee system that can equitably raise revenues from the users of navigation channels in reasonable relation to the distribution of benefits . . .”

Response. Both the direct users of navigation channels and the beneficiaries of navigation channels are so diverse, truly national in scope, that it is unlikely that an equitable user fee system can be devised. For example, in addition to commercial shipping, navigation channel users include vessels involved in national defense, commercial fishing, research, and recreation; these users, however, have not been part of the 1986 HMT funding mechanism. Furthermore, the economic and environmental benefits of safe and efficient trade provided by the Nation's system of navigation channels are spread throughout the country. The foreign trade activities of each State are supported by a variety of ports both within and, more often, outside the State. On average, each State relies on between 13 to 15 ports to handle 95 percent of its imports and exports. The goods from 27 States leave the country through the ports in Louisiana alone. Midwestern grain supplies the Pacific rim market through ports in the Pacific Northwest. Imported crude oil refined in New Jersey and Pennsylvania reaches consumers on the entire East Coast—from Maine to Florida. Steel that travels to major Midwestern industrial centers is delivered cheaply and efficiently through Great Lakes ports. Ports on the West Coast handle goods such as cars, computers, and clothing, which are destined for consumers throughout the country.

AAPA considered four criteria in assessing possible Harbor Maintenance Tax alternatives: (1) there should be equity among ports so that each port gets a reasonable return for fees paid on cargo moving through it; (2) the fee should not add to the price of the Nation's bulk export products (e.g., grain, coal), making these commodities uncompetitive in international markets; (3) the fee should not alter the competitive position among U.S. ports or induce the diversion of cargo from U.S. ports to Canadian or Mexican ports; and (4) the fee should meet the constitutional test set out by the Supreme Court that it should be reasonably related to the service provided. As is explained below and in the attached white paper, AAPA considered a number of alternatives to the existing HMT but determined that none met the criteria.

Because of the enormous national economic and national security benefits, and because the diverse navigation user community makes assigning a fee based on use extremely difficult, the Federal Government should reaffirm its long-standing responsibility for maintaining navigation channels through funding from general treasury.

Question 2. Is there no way for us to install a program whereby the users fund (at least partially) O&M activities along the waterways?

Response. As described above, designing a user fee system that is equitable and does not harm the competitiveness of the Nation's exports will be extremely difficult, if not impossible. Certainly, however, a user fee system that is designed to raise less than the full cost of maintenance dredging would have less adverse effects than a system that raises just enough or more than is needed. This was exactly the reasoning Congress used in enacting the original Harbor Maintenance Tax in 1986. At that time, the tax was set at 0.04 percent of the value of cargo and it was intended to cover 40 percent of the cost of maintenance dredging. In 1990, the tax was more than tripled to cover 100 percent of maintenance dredging costs. Since that time, the Harbor Maintenance Trust Fund has accumulated a surplus of over \$1 billion.

Question 3. Is the Administration just wasting its time by trying to come up with an equitable program that meets the Supreme Court criteria?

Response. For over 2 years, AAPA members reviewed alternatives in case the existing tax was ultimately ruled unconstitutional by the Supreme Court. The task group developed the criteria discussed above and analyzed a variety of alternatives, but found none that met the criteria noted earlier; only returning to pre-1986 General Treasury funding appeared to be a viable solution. We recognize that the Administration may believe it must work through a similar process of analyzing alternatives, and we are prepared to assess any alternatives they may propose against the criteria described above.

Question 4. What alternatives has your organization debated? None of them viable?

Response. AAPA's task group reviewed several options before it concluded that returning to general treasury funding for maintenance dredging was the only equitable solution. Many of these options were considered during debates from 1981 to 1986. Unfortunately, the only option to survive the *ad valorem* HMT was found unconstitutional by the Supreme Court. It does not appear that there are significant new or old options that would work better today.

The assessment of a uniform tonnage fee on cargo or vessels would severely affect bulk commodities, such as grain or coal, which compete in international markets where pennies a ton can make or break a sale. These shipments, which are amongst our Nation's leading export products, now use the most cost-effective route—typically moving by barges down rivers to coastal harbors. Those harbors, in turn, tend to require significant maintenance dredging because of the river sediment. In general, dredging demands related to the shipping of these types of export products are greater than those related to import products.

Another alternative considered would have required local ports to raise their own funding for maintenance dredging. Such a change could pit U.S. ports against each other, the result of which could impact commerce and national security. The concept also alters the fundamental Federal role in maintaining the national navigation system. Like a tonnage tax, local funding, if passed on to port users, could increase transportation costs, pricing bulk commodities out of international markets either through increased charges at the currently utilized port(s) or by increasing inland transportation costs due to diversion from the inland waterway system.

Other options for raising revenue from direct users of the navigation channels are not likely to produce sufficient funds. In addition, direct navigation users are already significantly taxed. A 1993 General Accounting Office study found that 12 Federal agencies levy 117 assessments on waterborne trade. In 1996, receipts from these fees were 152 percent of the level raised only 10 years earlier, making our exports more expensive and less competitive in international markets.

Customs revenues in fiscal year 1996 totaled \$22.3 billion, of which roughly 70 percent (or \$15.6 billion) is attributable to cargo moving through seaports. These funds, currently collected from users of navigation channels, are more than 31 times greater than the cost of maintenance dredging (approximately \$500 million). Expected increases in customs collections due to increased trade would likely be enough to pay for maintenance dredging. The following table contains the custom receipts for this 10-year period.

Based both on the recent Supreme Court decision and the rancorous debate during the 1980's, any alternative trade tax/user fee funding mechanism will have significant legal and political challenges to overcome. In addition, enormous national economic and national security benefits are threatened if the Federal Government does not continue to make these navigation channel investments.

As described above, benefits of safe and efficient trade provided by the Nation's system of navigation channels are spread throughout the country. In addition, the

benefits to the Nation resulting from national defense, commercial fishing, research and recreational users are immeasurable; assessing fees on these users, however, was not part of the 1986 HMT funding mechanism. The burden for raising funds to pay for dredging should be spread across the whole Nation because all our citizens benefit. General Treasury funding of maintenance dredging should be resumed.

Year	Total Receipts	70 percent of Total (Assumed Attrib. to Seaport Ports)	Yr. to Yr. percent chg.	1986–1996 percent chg.
1986	14,731,191,766	10,311,834,236		
1987	16,445,193,364	11,511,635,355	11.64	
1988	17,461,632,349	12,223,142,644	6.18	
1989	18,649,411,310	13,054,587,917	6.80	
1990	19,066,925,772	13,346,848,040	2.24	
1991	17,995,115,674	12,596,580,972	– 5.62	
1992	19,983,701,909	13,988,591,336	11.05	
1993	21,570,490,029	15,099,343,020	7.94	
1994	22,980,653,342	16,086,457,339	6.54	
1995	23,319,330,984	16,323,531,689	1.47	
1996	22,342,702,434	15,639,891,704	– 4.19	51.67

RESPONSES OF KURT NAGLE TO ADDITIONAL QUESTIONS FROM SENATOR REID

Question 1. I suspect, Mr. Nagle, that your principle concern is the Harbor Maintenance Trust Fund, which I am told contains about \$1 billion. In your statement you encourage the Congress and Administration to “develop equitable solutions to the funding challenge.” With the vast interests that your association has in the solvency of the trust fund and the ability of the Corps to maintain the harbors and ports, you should come to the Congress with options that are practical and realistic in an era of shrinking budgets.

Response. For the over 200 years prior to 1986, the Federal Government was responsible for funding the construction and maintenance of navigation channels from the general treasury. The Federal Government recognized the paramount importance of international and domestic waterborne trade to the economic, and ultimately, social, vitality of the country. Every State in the Nation benefits from the system of ports that has developed, in partnership between the Federal Government and local/State governments. As an example, attached is a summary of ports used to handle international trade flowing into and out of Nevada. Sixteen ports each handled more than 1 percent of Nevada's total imports and exports (based on tonnage); 7 of the ports are on the Pacific Coast; 4 are on the Gulf Coast; and, 5 are on the Atlantic Coast.

While the Nation's public ports do have a vast interest in seeing the Federal Government maintain its long-held responsibility to construct and maintain navigation channels, we are also concerned that the enormous investments ports have made in the land-side infrastructure remain viable and competitive. Relying in good faith on this long-standing partnership, local port authorities have spent over \$16.8 billion since World War II and expect to spend an additional \$1.3 billion annually to construct and maintain landside facilities over the next 5 years.

For over 2 years, a task group of AAPA members examined the issues surrounding Federal channel maintenance funding, including possible alternatives to the Harbor Maintenance Tax. AAPA considered four criteria in assessing possible Harbor Maintenance Tax alternatives: (1) there should be equity among ports so that each port gets a reasonable return for fees paid on cargo moving through it; (2) the fee should not add to the price of the Nation's bulk export products (e.g., grain, coal), making these commodities uncompetitive in international markets; (3) the fee should not alter the competitive position among U.S. ports or induce the diversion of cargo from U.S. ports to Canadian or Mexican ports; and, (4) the fee should meet the constitutional test set out by the Supreme Court that it should be reasonably related to the service provided. As is explained in the attached white paper, AAPA considered a number of alternatives to the existing HMT but determined that none satisfied all of the criteria.

Because of the enormous national economic and national security benefits, and because the diverse navigation user community makes assigning a fee based on use

extremely difficult, Federal Government should reaffirm its long-standing responsibility for maintaining navigation channels through funding from general treasury.

Question 2. Nevada does not have a harbor, but I must raise the problem that both Mr. Nagle and Mr. Higgins should address: How should the extensive and complex problems of the harbors and beach erosion be addressed in fiscally constraining years and be balanced with other programs and activities of the Corps?

Response. As stated above, in my testimony, and in the attached white paper, AAPA believes that adequately constructed and maintained navigation channels are too important to the Nation to be compromised in fiscally constraining years; these assets return much more money to the Federal Government than they cost. Furthermore, the prospect of increasing fees on the commercial shipping community appears contrary to the Federal Government's objective of increasing international trade; direct navigation users are already significantly taxed. A 1993 General Accounting Office study found that 12 Federal agencies levy 117 assessments on waterborne trade. In 1996, receipts from these fees were 152 percent of the level raised only 10 years earlier, making our exports (e.g., coal) more expensive and less competitive in international markets.

Customs revenues in fiscal year 1996 totaled \$22.3 billion, of which roughly 70 percent (or \$15.6 billion) is attributable to cargo moving through seaports. These funds, currently collected from users of navigation channels, are more than 31 times greater than the cost of maintenance dredging (approximately \$500 million). Expected increases in customs collections due to trade growth, which according to the Custom Service will triple (import volume) by 2020, would likely be enough to pay for maintenance dredging. The following table contains the custom receipts for this 10-year period.

Based both on the recent Supreme Court decision and the rancorous debate during the 1980's, any alternative trade tax/user fee funding mechanism will have significant legal and political challenges to overcome. In addition, enormous national economic and national security benefits are threatened if the Federal Government does not continue to make these navigation channel investments.

The benefits of safe and efficient trade provided by the Nation's system of navigation channels are spread throughout the country. In addition, the benefits to the Nation resulting from national defense, commercial fishing, research and recreational users are immeasurable; assessing fees on these users, however, was not part of the 1986 HMT funding mechanism. The burden for raising funds to pay for dredging should be spread across the whole Nation because all our citizens benefit. General Treasury funding of maintenance dredging should be resumed.

Year	Total Receipts	70 percent of Total (Assumed Attrib. to Seaport Ports)	Yr. to Yr. percent chg.	1986-1996 percent chg.
1986	14,731,191,766	10,311,834,236		
1987	16,445,193,364	11,511,635,355	11.64	
1988	17,461,632,349	12,223,142,644	6.18	
1989	18,649,411,310	13,054,587,917	6.80	
1990	19,066,925,772	13,346,848,040	2.24	
1991	17,995,115,674	12,596,580,972	-5.62	
1992	19,983,701,909	13,988,591,336	11.05	
1993	21,570,490,029	15,099,343,020	7.94	
1994	22,980,653,342	16,086,457,339	6.54	
1995	23,319,330,984	16,323,531,689	1.47	
1996	22,342,702,434	15,639,891,704	-4.19	51.67

NEVADA TRADE BY PORT AND WORLD REGION

This section presents Nevada import and export tons, value and TEUs by port and world region. The principal observations are:

- 16 ports handled 95 percent of Nevada tons; 15 ports handled 95 percent of Nevada; and 12 ports handled 95 percent of Nevada TEUs.
- 16 ports handled more than 1 percent of Nevada total import and export tons. 7 of the ports are on the Pacific Coast, 4 of the ports are on the Gulf Coast and 5 of the ports are on the Atlantic Coast.

- 13 ports handled more than 1 percent of Nevada total import and export value. 6 of the ports are on the Pacific Coast, 4 of the ports are on the Atlantic Coast and 3 of the ports are on the Gulf Coast.
- 12 ports handled more than 1 percent of Nevada total import and export TEUs. 6 of the ports are on the Pacific Coast, 4 of the ports are on the Atlantic Coast and 2 of the ports are on the Gulf Coast.
- 13 world regions traded more than 1 percent of Nevada total import and export tons. 5 of the regions are in Asia, 2 of the regions are in the Americas, 5 of the regions are in Europe/Africa and one of the regions is Australia-NZ.
- 11 world regions traded more than 1 percent of Nevada total import and export value. 5 of the regions are in Asia, 3 of the regions are in Europe/Africa, 2 of the regions are in the Americas and 1 of the regions is Australia-NZ.
- 11 world regions traded more than 1 percent of Nevada total import and export TEUs. 5 of the regions are in Asia, 3 of the regions are in Europe/Africa, 2 of the regions are in the Americas and 1 of the regions is Australia-NZ.

Data Source: Journal of Commerce PIERS, Waterborne Statistics 1993–1994, U.S. Army Corps of Engineers, IWR.



Nevada Total Import/Export Value by Port



Top 20 Ports	Total	Imports	Exports
Oakland CA	22.8%	14.8%	7.8%
Charleston SC	13.4%	13.2%	0.2%
Los Angeles CA	12.8%	10.4%	2.4%
Long Beach CA	12.5%	10.0%	2.0%
Houston TX	11.8%	2.5%	9.1%
Galveston TX	7.2%	5.8%	1.0%
Vancouver WA	3.3%	0.0%	3.3%
New York - NJ	2.7%	1.9%	0.7%
Savannah GA	2.1%	2.1%	0.0%
Seattle WA	2.0%	1.0%	1.0%
Beaumont TX	1.7%	1.7%	0.0%
San Francisco CA	1.6%	1.3%	0.4%
Norfolk VA	1.2%	1.1%	0.1%
Philadelphia PA	0.7%	0.7%	0.0%
New Orleans LA	0.7%	0.7%	0.0%
Port Arthur TX	0.6%	0.6%	0.0%
Baltimore MD	0.6%	0.4%	0.2%
Miami FL	0.5%	0.2%	0.3%
Port Everglades FL	0.4%	0.3%	0.1%
Corpus Christi TX	0.4%	0.4%	0.0%

Nevada Total Import/Export TEUs by Port

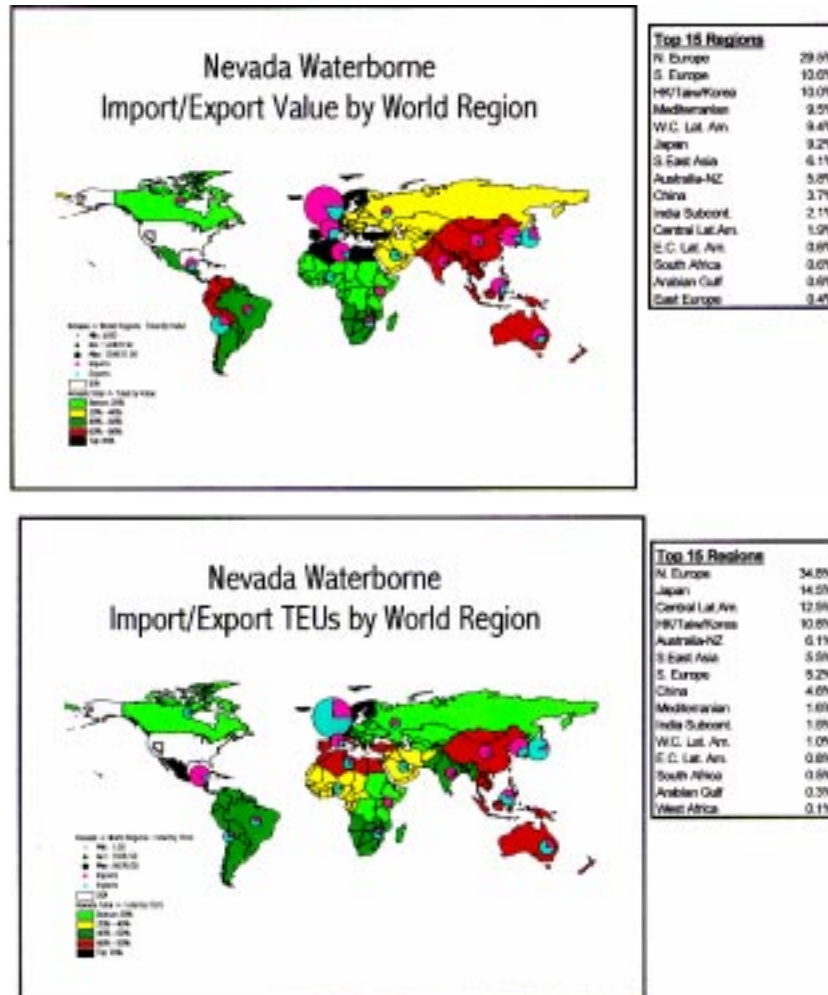


Top 20 Ports	Total	Imports	Exports
Oakland CA	54.2%	12.4%	41.8%
Los Angeles CA	11.6%	9.8%	1.8%
Long Beach CA	8.9%	8.9%	3.0%
Port Everglades FL	4.6%	4.1%	0.5%
Portland OR	4.1%	0.0%	4.1%
Wilmington DE	2.2%	2.1%	0.0%
Miami FL	2.0%	1.7%	0.3%
San Francisco CA	1.8%	0.4%	1.4%
Houston TX	1.8%	0.9%	0.9%
West Palm Beach FL	1.8%	1.4%	0.1%
Galveston TX	1.5%	0.3%	1.1%
Seattle WA	1.4%	0.5%	0.9%
New York - NJ	0.8%	0.6%	0.2%
New Orleans LA	0.8%	0.2%	0.5%
Norfolk VA	0.7%	0.6%	0.1%
Savannah GA	0.6%	0.3%	0.2%
Tacoma WA	0.5%	0.0%	0.5%
Philadelphia PA	0.5%	0.5%	0.0%
Charleston SC	0.3%	0.2%	0.1%
Jacksonville FL	0.2%	0.0%	0.2%

Nevada Waterborne Import/Export TEUs by World Region



Top 14 Regions	Total
N. Europe	34.8%
Japan	14.8%
Central Lat. Am.	12.5%
HP/Taiwan/Korea	10.8%
Australia-NZ	6.1%
S. East Asia	5.5%
S. Europe	5.2%
China	4.6%
Mediterranean	1.6%
India Subcont.	1.5%
W.C. Lat. Am.	1.0%
E.C. Lat. Am.	0.8%
South Africa	0.5%
Arabian Gulf	0.3%
West Africa	0.1%



PREPARED STATEMENT OF SCOTT C. FABER, AMERICAN RIVERS

Mr. Chairman, thank you for the opportunity to testify on the Water Resources Development Act of 1998. My name is Scott Faber and I am the Director of Floodplain Programs for American Rivers, a national river conservation group based in Washington, DC.

I would like to share our strong support for three nationally important initiatives: S. 1399, the Missouri River Enhancement Program proposed by Senator Bond; expansion of the Environmental Management Program for the Upper Mississippi River; and the *Challenge 21* Program proposed by the Corps of Engineers.

MISSOURI RIVER ENHANCEMENT PROGRAM

As we near the 200th anniversary of Lewis & Clark's historic voyage up the Missouri River, we have a once-in-a-lifetime opportunity to boost recreation and tourism, revitalize riverfront communities, and restore habitat for river wildlife. In the same year that the Army Corps was founded, Lewis & Clark's *Corps of Discovery* was undertaking one of the greatest adventures in American History.

In 1804, Lewis and Clark bore witness to some of nature's greatest scenes. Far more than explorers, Lewis and Clark were also pioneering naturalists. Their jour-

nals are filled with descriptions of the river valley and its wild inhabitants, ranging from herds of 10,000 buffalo to a flock of white pelicans more than three miles long. The *Corps of Discovery* recorded scores of plants, insects, fish, birds, and animals previously unknown to science, ranging from least terns and prairie dogs to cut-throat trout.

The Missouri River of Lewis and Clark featured thousands of islands and sandbars separated by two constantly shifting channels. Dense forests, shallow wetlands, and endless prairies bordered the river. Water also flowed through thousands of smaller side channels that provided a wide variety of water depths and speeds.

The river was in a constant state of change. As snow melted and spring rains fell, floods inundated riverside land, replacing ancient hickory and elm with cottonwood and willow. Eroding banks contributed the basic building materials for sandbars, islands, and snags.

Floods also acted as a reproductive cue, and allowed fish to migrate out of the river's main channels into slower, shallow water on the floodplain to spawn. As flood waters receded, trees were washed into the river and accumulated in side channels, fueling the production of insects consumed by fish and waterfowl. As river levels fell, sandbars emerged, allowing terns, plovers, and other shorebirds to nest and forage. More than 500 different species of fish and wildlife relied upon this dynamic template for their survival.

Mostly, what Lewis and Clark saw, we cannot. Nearly 200 years after their voyage of discovery, Lewis and Clark would hardly recognize the Missouri River. Today, white pelicans are rarely seen on the Missouri, and the least tern and several other species are considered endangered by the Federal Government.

Dams and channels created to support navigation, generate hydropower and reduce flooding have dramatically altered the Nation's longest river, eliminating the natural meanders and oxbows that once supported one of the world's most diverse fisheries. Engineers forced the river's restless, braided channels into a single, deep, stabilized navigation canal. The river was narrowed by half and shortened by 127 miles. Nearly all of the river's islands and sandbars were lost. As nurseries for wildlife were destroyed, one-fifth of the fish species native to the Missouri have been placed on Federal and State watch lists. Many species have fallen to less than 10 percent of their historic population levels.

As the Corps of Engineers replaced hundreds of shallow, slow moving channels with a swift, deeper canal, it eliminated the places fish used to feed, reproduce, and conserve energy. As forests and prairies have been replaced with corn and soybeans sequestered behind levees, trees are no longer washed into the river during floods and fish can no longer migrate onto the river's floodplain to spawn. The construction of dams sharply reduced the amount of sand and silt transported by the Big Muddy, eliminating the building materials for islands and sandbars and encouraging the river to dig an ever-deeper channel. The amount of sand and silt transported by the river fell by two-thirds, eliminating the muddy shroud that once protected catfish and bigmouth buffalo from sight-feeding predators. Dam operations interrupt the rising flows which once triggered reproduction and migration.

Sturgeon, paddlefish, catfish, chubs, minnows, and other fish species that evolved in the formerly shallow, muddy, and ever-changing Missouri have rapidly declined. The pallid sturgeon, a species that emerged over 150 million years ago, has been nearly eliminated in 50 years. Even catfish—the cornerstone of the river's commercial fishing industry—are becoming rare. Consequently, the number of commercial fishers has dropped from nearly 1,000 to less than 400.

The loss of sandbars has reduced nesting habitat for two federally endangered birds, the least tern and the piping plover. Both birds nest on barren sandbars and forage in shallow water. But today, sandbars are frequently submerged during the summer nesting season. In addition, poorly timed flows often destroy established nests, and the absence of high flows allows sandbars to become overgrown with vegetation. Other shorebirds, wading birds, and waterfowl have declined as places to nest, forage, and rest have been eliminated, and the number of thrushes, warblers, wrens, sparrows, and other small perching birds which once used the river's floodplain during their annual migration has also dropped.

As we celebrate the 200th anniversary of Lewis & Clark's voyage of discovery, millions of Americans will re-trace their steps. Today, we can only imagine what Lewis and Clark saw. We cannot restore the river Lewis and Clark knew, but we can repair a river that will attract recreation and tourism, reestablish riverfronts as community centers, and restore habitat for river wildlife. We can create a Missouri River Lewis and Clark would recognize.

The River Enhancement Program proposed by Senator Bond can be the centerpiece of these efforts. Unlike the existing Missouri River Fish and Wildlife Mitigation Program, which authorizes the Corps to re-open historic side channels and

sloughs, S. 1399 authorizes the Corps to modify the rip-rap, wing dikes and other river training structures which line the Missouri's bank to create river habitat—without interfering with commercial navigation or private property rights. S. 1399 reflects the dramatic change that is occurring within the Corps of Engineers. No longer merely dam builders, today's Corps of Engineers is struggling to strike a balance between the needs of nature and navigation. This program takes a decisive and aggressive step toward rehabilitation of the Missouri River—the type of action which will restore the river to a condition that even Lewis and Clark would recognize.

We strongly urge you, Mr. Chairman, to advance the rehabilitation of the Missouri River and the revitalization of its riverside communities by including the River Enhancement Program in the Water Resources Development Act of 1998.

UPPER MISSISSIPPI RIVER ENVIRONMENTAL MANAGEMENT PROGRAM

Like the Missouri, the long-term health of the Mississippi River from Saint Paul to Saint Louis is threatened.

Dams, levees and river training structures have robbed the Mississippi of its power to create new habitat during periods of high flow. Sloughs, side channels and backwaters which fill with silt and sediment are no longer replaced during floods but are instead replaced by State and Federal restoration programs.

The Environmental Management Program on the Upper Mississippi River has restored 28,000 acres of habitat for river wildlife in five States and dramatically improved our understanding of the river's needs. With little fanfare, the Saint Louis District of the Corps of Engineers changed dam operations on the Mississippi River to quietly create more than 3,000 acres of new habitat for river wildlife.

Unfortunately, habitat is being lost faster than it can be replaced, and the Corps recently concluded that—absent action by the Congress—the Upper Mississippi River will experience a shift to less desirable fish species, poorer water quality and fewer areas which are able to support migratory waterfowl. Far more than fish and wildlife are at stake. More than 12 million people use the Upper Mississippi River for recreational purposes each year, spending \$1.2 billion and supporting 18,000 jobs.

By increasing the authorized spending level for the Environmental Management Program from \$19.4 to \$33.2 million, Congress can ensure that the Upper Mississippi River continues to be both a working river and a living river. The Upper Mississippi is the hardest working river in the Nation, annually moving more than 90 million tons of cargo. The river is also a nationally significant natural resource, sheltering more than 400 different species of wildlife, acting as the migration corridor for 40 percent of North America's waterfowl, and harboring the Nation's most ancient lineage of freshwater fish.

CHALLENGE 21 INITIATIVE

Finally, I would like to share our strong support for the *Challenge 21* Initiative. The Corps of Engineers has developed the *Challenge 21* Initiative to fill an important void in the Corps' flood loss reduction arsenal—pre-disaster hazard mitigation. Despite our efforts, the overall cost of disasters continues to grow. From 1989 to 1993, the average annual losses from disasters were \$3.3 billion. But, in the last 4 years, average annual losses from disasters have quadrupled to \$13 billion. Whether we live in disaster-prone areas or not, all Americans have felt the effect of these devastating natural disasters. Since 1989, FEMA's disaster costs have topped \$22 billion, a 550 percent increase over the previous 10 years.

While structural projects will continue to be needed, our Nation's flood control experts have urged us to place greater reliance on voluntary relocation, elevation and other solutions which permanently reduce the threat of flood losses while simultaneously protecting streamside habitat.

The land bordering our rivers and streams is critically important to river health—acting as a buffer which filters polluted runoff; providing shade which reduces water temperatures; contributing the leaves, trees and other debris that make up the base of the aquatic food chain; giving the river more room to spread out during periods of high flow; and providing spawning habitat for a wide variety of species.

Unlike structural flood control projects, the *Challenge 21* Initiative is designed to satisfy all of the needs of riverside communities—enhanced water quality, reduced flood losses, habitat for river wildlife, and increased opportunities for recreation. Many riverside communities are struggling to identify measures which reduce flood losses while simultaneously re-establishing their riverfronts as community centers. The *Challenge 21* Initiative is designed to meet their long-term economic and environmental needs.

We have already seen the benefits of voluntary relocation in places like Arnold, Missouri, which was devastated by the Great Flood of 1993. Disaster relief for Arnold's flood victims topped \$2 million in 1993. But, following a voluntary relocation program, Federal assistance was less than \$40,000 when floodwaters returned in 1995. Overall, more than 20,000 homes and businesses across the Nation have been voluntarily relocated, elevated or acquired since 1993.

We strongly support the *Challenge 21* Initiative and other efforts to expand pre-disaster and post-disaster mitigation efforts. And, we urge you to meet the long-term needs of the Missouri River and the Upper Mississippi River by authorizing the Missouri River Enhancement Program proposed by Senator Bond, and by expanding the Environmental Management Program for the Upper Mississippi River.

Thank you for opportunity to provide testimony this morning. I would be happy to respond to your questions.

RESPONSES OF SCOTT E. FABER TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question 1a. I was very impressed with your testimony and am interested in what led to the Missouri River restoration bill introduced by Senator Bond. Who played a role in that effort? Was it coordinated between the conservation community and the navigation interests?

Response. The spirit of collaboration which ultimately led to S. 1399 began more than 3 years ago, when representatives of navigation, agriculture and conservation groups created a collaborative process designed to balance the needs of nature and navigation on the Upper Mississippi River.

American Rivers and MARC 2000, a navigation industry trade association, established the "Upper Mississippi River Summit" in 1995 to seek compatibility between economic and environmental uses of the Upper Mississippi River. In February 1996, participants in the first Summit set aside historic antagonisms and agreed to work collaboratively in five teams of public and private interests. In February 1997, approximately 50 navigation, agriculture, conservation and government organizations adopted the recommendations of the teams, including improved dam operations, floodplain restoration projects, innovative river training structures, improved watershed management, and the development of a science-based natural resources blueprint. In March 1998, more than 80 organizations joined a revised vision statement (*Note: See resolution on page 103*).

The spirit of collaboration and mutual respect which has taken hold among interests concerned about the Upper Mississippi River has recently developed among public and private interests concerned about the Lower Missouri River as well. With the encouragement of Senator Bond, public and private interests began to collaboratively address threats to the river's natural resources. The result was S. 1399, which authorizes the Corps to modify the dikes, rip-rap and other structures which control the Missouri River to create the slow-flowing, shallow-water habitat preferred by river wildlife. Senator Bond and his staff led our discussions, ensuring that concerns regarding navigation, flood control and property rights were addressed. Ultimately, representatives of American Rivers, MARC 2000 and the Missouri Farm Bureau were able to join Senator Bond under the Arch in Saint Louis to announce the bill's introduction.

Question 1b. What sorts of Army Corps analysis or studies do we have to justify the proposed effort?

Response. The Corps of Engineers and other public and private agencies have conducted a wide variety of specific and general studies which support the modification of bank stabilization structures to restore aquatic habitat. Due to the length of the following documents, copies were not provided but are available upon request.

(1) U.S. Army Corps of Engineers, Omaha District, 1998. Technical Report on modifications to bank stabilization structures for the Waverly Reach and Nebraska City Reach of the Missouri River. (predicts the benefits of modifications to river training structures for selected locations in Nebraska, Iowa and Missouri).

(2) U.S. Army Corps of Engineers, Omaha District, 1997. Technical Report on modifications to bank stabilization structures for the Omaha Reach of the Missouri River (predicts the benefits of modifications to river training structures for selected locations in Nebraska and Iowa).

(3) U.S. Army Corps of Engineers. July 1994. Missouri River Master Water Control Manual Review and Update Study. Draft Environmental Impact Statement (describes the impact of river training structures on wildlife habitat, geomorphology).

(4) U.S. Army Corps of Engineers. July 1994. Missouri River Master Water Control Manual Review and Update Study. Technical Reports. Vols. 7C-7E, 7F-7G, and

7H (describes the impact of river training structures on fish, nesting waterfowl, wetlands and riparian habitat).

(5) U.S. Fish and Wildlife Service, Biological Opinion (Draft), 1993. (describes the impact of channelization on river wildlife and supports the modification of river training structures to recover endangered species, including the pallid sturgeon).

(6) U.S. Fish and Wildlife Service, 1993. Pallid Sturgeon Recovery Plan. U.S. Fish and Wildlife Service, Bismarck, ND, 55 pas. (describes the impact of channelization on the pallid sturgeon and recommends modifications to bank stabilization structures to create shallow water habitat).

(7) Hesse, L.W., Mestl, G.E., and Robinson, J.W. 1993. Status of selected Missouri River fish species, in Hesse, L.W., Stalnaker, C.B., Benson, N.G., and Zuboy, J.R., eds, Restoration planning for the rivers of the Mississippi River ecosystem: Washington, DC, National Biological Survey Report 19, pp. 327–340. (assesses the status of Missouri River fish species and the impacts of channelization, changes in hydrology).

(8) Galat, D.L., Robinson, J.W., and Hesse, L.W. 1996. Restoring aquatic resources to the lower Missouri River: Issues and initiatives, in Galat, D.L., and Frazier, A.G., eds., Overview of river-floodplain ecology in the Upper Mississippi River Basin, V.3 of Kelmelis, J.A. ea., Science for floodplain management into the 21st century: Washington, DC, U.S. Government Printing Office, pp. 49–71. (describes the impacts of channelization and support modifications to bank stabilization projects to create habitat).

(9) U.S. Army Corps of Engineers, 1982. Technical Report on the influence of channel regulating structures on fish and wildlife habitat, 68 pas, Institute of River Studies at the Univ. of Missouri-Rolla. (describes the impact of channel training structures on geomorphology, and wildlife).

(10) U.S. Fish and Wildlife Service. 1980. Fish and Wildlife Coordination Act Report, Missouri River Stabilization and Navigation Project (Sioux City, Iowa, to mouth), Habitat Restoration. 77pp. (documents the impact of bank stabilization projects on wildlife habitat between Sioux City and Saint Louis).

(11) Funk, J.J., and Robinson, J.W. 1974. Changes in the channel of the lower Missouri River and effects on fish and wildlife: Jefferson City, Missouri Department of Conservation, Aquatic Series 11, 52pp. (describes the impact of channelization on wildlife habitat, and accompanying declines in fish, forbearers, and waterfowl).

(12) U.S. Fish and Wildlife Service. August 1994. Draft Biological Opinion on the Missouri River Master Water Control Manual Review and Study and Operations of the Missouri River Main Stem System. U.S. Fish and Wildlife Service, Region 6—Denver, CO, Region 3—Fort Snelling, MN, 139 pas. (details the losses of fish and wildlife and their habitats due to both dams on the Missouri and channelization of the lower river, and discusses the need to create a diversity of habitat in the Missouri's main channel by modifying river training structures).

(13) Missouri River Natural Resources Committee. 1997. Restoration of Missouri River Ecosystem Functions and Habitats. (details lost fish and wildlife habitat due to dams and channelization, and discusses modifications to river training structures as a means to provide needed habitat diversity).

Question 2. We tried hard to increase the funding levels for environmental projects and programs in the 1996 WRDA. Is there a particular project, program or policy from that bill that you think has worked exceptionally well?

Response. Since 1986, the Corps of Engineers has become the Nation's leading environmental restoration agency.

Through programs like the Section 1135 Program, the Upper Mississippi River Environmental Management Program, and efforts to restore Florida's Everglades, the Corps has successfully restored hundreds of thousands of acres of wildlife habitat. Under Section 1135 of the Water Resources Development Act of 1986, for example, the Corps has restored nearly 400 acres of wetlands, woodland and grassland in the Yolo Basin, transplanted seagrass in the Laguna Madre, and reforested the floodplain of the Mississippi River. Public and private interests increasingly rely on the Corps' expertise to protect and restore floodplain, wetland and aquatic habitat.

The long-term health of the Nation's rivers and streams will largely depend upon habitat restoration efforts by the Corps. Dams and channelization have dramatically altered the Nation's rivers, eliminating the habitat river wildlife need to feed, conserve energy and reproduce, and altering the hydrologic cues that trigger spawning migrations. No other Federal agency has the authority and expertise needed to modify existing water resources infrastructure to enhance the environment. In addition to Section 1135, the Corps has successfully modified dam operations to increase aquatic habitat. For example, the Saint Louis district recently lowered water levels

during the summer months to trigger the growth of marsh plants, creating more than 3,000 acres of new habitat for migratory waterfowl at no Federal expense.

Two provisions of the Water Resources Development Act of 1996 have dramatically expanded the Corps's ability to protect our natural resources. Section 206 of the Water Resources Development Act of 1996 provides the Corps greater flexibility to protect and restore aquatic habitat than is now provided under the Section 1135. Section 207 allows the Corps to cost-effectively maintain navigable waterways and dispose of dredged material while simultaneously protecting and enhancing the environment by permitting the Corps to adopt alternatives which are more costly but which provide substantial environmental benefits. Permitting the Corps to marginally increase maintenance costs to protect and enhance the environment results in long-term savings in two ways: by eliminating disputes which increase the administrative costs of maintenance, and by ultimately reducing the costs of habitat restoration.

Despite the enormous benefits of these environmental provisions, two other sections of the Water Resources Development Act of 1998 will ultimately have far greater effect on the Nation's rivers and streams: flood control reforms and an increased focus on watershed management and restoration.

By increasing the local share of flood control projects and requiring sponsors to develop and implement floodplain management plans, Congress gave communities greater incentive to direct new development from flood-prone areas. Despite spending more than \$30 billion on dams and levees, flood losses have more than tripled since 1951, when adjusted for inflation. Rather than limiting development on flood-prone lands, New Deal policies inadvertently encouraged the development of floodplains, placing thousands of homes and businesses in harm's way. Heavy reliance on structural solutions created a false sense of security which encouraged development in flood-prone areas, multiplying the consequences of a structure's inevitable failure.

In recent years, many communities have rejected levees and dams in favor of non-structural alternatives, including relocation, elevation and land acquisition. For example, the city of Tulsa recently rejected channelization in favor of using greenways, ball fields and permanent lakes to provide temporary flood storage during high water. Following floods on the Mississippi and Missouri rivers in 1993, more than 10,000 homes and businesses were voluntarily relocated from harm's way. Since 1993, the Federal Emergency Management Agency has relocated 15,000 additional structures in ten States.

The residents of Napa County recently approved a 20-year, \$220 million effort to remove levees, restore floodplain wetlands and relocate vulnerable homes and businesses (see attached).

Although the flood control reforms included in the Water Resources Development Act of 1996 create new incentives for improved floodplain management, Congress failed to give the Corps authority to successfully participate in non-structural alternatives. Although a congressionally-mandated report on impediments to non-structural alternatives is not complete, flood control experts have identified five internal obstacles: one, Corps planning guidance excludes the residual costs associated with a structure's failure even though levees only provide a limited amount of protection; two, Corps planning guidance fails to include the benefits of a natural floodplain, including improved water quality, wildlife habitat, enhanced recreation and tourism, improved quality of life, and scenic benefits; three, Corps feasibility studies rarely consider a range of non-structural alternatives, ignoring non-structural alternatives which provide less than a 100-year level of protection; four, the Corps systematically undervalues the benefits of river recreation to riverside communities by adopting methodologies which exclude recreational use at undeveloped sites.

In order to address these obstacles, we urge Congress to support the *Challenge 21 Initiative*. This fills an important void in the Corps' flood loss reduction arsenal—pre-disaster hazard mitigation. Unlike structural flood control projects, the *Challenge 21 Initiative* is designed to satisfy all of the needs of riverside communities—enhanced water quality, reduced flood losses, habitat for river wildlife, and increased opportunities for recreation. Many riverside communities are struggling to identify measures which reduce flood losses while simultaneously re-establishing their riverfronts as community centers.

In addition to the historic flood control reforms included in the Water Resources Development Act of 1996, Congress also authorized wider use of watershed management in Section 503, which authorizes watershed management studies, and Section 340, which expanded the Planning Assistance to States program to include watershed management. Exacerbating inappropriate development in the floodplain are thousands of seemingly unrelated decisions throughout river basins which have increased the rate at which water moves off the surface of the land and into our rivers

and streams. Rather than approaching the problem of flood-loss reduction through a project-by-project approach, the Corps' new focus on watershed management allows the agency to address the major cause of increasing flood losses: hydrologic alteration of our river basins. Corps planners have embraced this new philosophy, and are working with State and local officials in hundreds of watersheds to develop watershed management strategies.

Although the Corps has philosophically adopted a watershed approach to flood loss reduction, they have been unable to use Section 503 in practice. The Corps has interpreted Section 503 as limiting the construction of projects to those river systems identified in the Water Resources Development Act of 1996. The Water Resources Development Act of 1998 provides a new opportunity to clarify the meaning of Section 503, and to instruct the Corps to adopt a watershed approach during the development of all future flood control projects.

Question 3. Other than the Administration's "Challenge 21" and reauthorization of the Upper Mississippi River Environmental Management Program, what do you think the Congress should do in WRDA 98 to improve natural resource protection?

Response. American Rivers urges the committee to continue to reform our Nation's flood control policies by giving communities the tools and incentives they need to direct development away from flood-prone areas. In particular, we urge you to consider the creation of a cost-sharing system designed to reward communities that have taken affirmative steps to reduce flood losses through non-structural means such as relocation, elevation and land acquisition.

We envision a cost-sharing system that would require local sponsors to pay 50 percent of the cost of flood-control projects. However, communities that have actively preserved natural floodplain values, or discouraged development in the floodplain, would continue to provide just 35 percent of the cost of flood-control projects. The community rating system now employed by the Federal Emergency Management Agency to reward communities which exceed the minimum requirements of the National Flood Insurance Program could be adapted to assess local sponsors of Federal flood control projects.

American Rivers also urges the committee to authorize new environmental restoration projects for our degraded rivers and streams. Dozens of communities hope to take advantage of the new Section 206 program, which authorizes the Corps to restore degraded ecosystems, and other Corps authorities to revitalize their hometown rivers. In particular, we urge the committee to authorize projects which restore degraded salmon habitat in the Pacific Northwest, where past salmon recovery efforts have largely failed.

In addition, several important projects will be under consideration in the Water Resources Development Act of 1998, including a flood control project proposed for the American River and a flood control project proposed for the Red River of the North. We urge the committee to reject proposals to construct a new dam on the American River and instead support efforts to modify existing levees and Folsom Dam. We strongly support proposals to set back levees and construct a floodway along the Red River of the North. Both proposals will meet flood loss reduction needs and protect the environment, a standard by which all proposed flood control projects should be measured.

Finally, the committee may consider whether to authorize a "comprehensive study" for the Upper Mississippi River. As currently conceived, the planning effort would attempt to integrate efforts designed to assess navigation, flood control and environmental needs. In particular, the study would consider a wide range of flood control alternatives, including higher levees, setting back levees, removing levees, acquiring land, and restoring wetlands. Long-term recreation, navigation, habitat, water quality and bank erosion needs would also be addressed. Although we recognize the need for integrated planning, we urge the committee to ensure that such a study will fairly, accurately and thoroughly consider all reasonable alternatives, including habitat restoration, wetland restoration, and non-structural flood control alternatives. In light of disputes regarding the Lower Mississippi River mainline levee, we are concerned that the Mississippi River Valley Division, formerly the Lower Mississippi River Valley Division, is not as committed to habitat restoration and non-structural flood loss reduction as the Congress and other Corps divisions. As always, we are more than willing to work with the Mississippi River Valley Division to balance economic and environmental needs.

RESPONSES OF SCOTT E. FABER TO ADDITIONAL QUESTIONS FROM SENATOR BAUCUS

Question 1. Mr. Faber, I know you are strongly supportive of the Lower Missouri River Enhancement program included in the Administration's proposal. Do you see any reason this program would not be beneficial to the entire Missouri River?

Response. Senator, American Rivers strongly supports efforts by the Corps of Engineers to restore wildlife habitat in Montana and the Dakotas. Like the lower Missouri River, river managers have identified dozens of opportunities to protect and restore wildlife habitat, including historic side channels and floodplain forest and prairie. As the agency with primary responsibility for the management of the Missouri, the Corps is uniquely positioned to implement these restoration projects.

In addition to habitat restoration, we urge you to direct the Corps to work with the Bureau of Reclamation to consider dam operations in western Montana which aid recreation and river wildlife. Currently, both agencies collaboratively develop operating criteria for Canyon Ferry and other Bureau of Reclamation reservoirs, dramatically influencing the regeneration of the Missouri's characteristic cottonwoods. The absence of periodic flushing flows eliminates the deposition of fresh alluvium that cottonwoods need to germinate. As mature cottonwoods die and are no longer replaced, river managers predict that we will witness the near absence of cottonwoods between Fort Benton and Fort Peck reservoir within 30 years. In addition to the aesthetic benefits of cottonwoods, the trees serve as primary roosting and nesting habitat for the federally threatened bald eagle. Congress should direct the Corps to consider changes in dam operations which aid the replacement of cottonwoods.

Finally, we urge you to support legislation proposed by the Missouri River Basin Association to create additional opportunities for recreation along the Upper Missouri River. Few rivers possess as much economic potential as the Missouri River. Although recreation already generates more than \$114 million in annual benefits rivers which feature healthy wildlife populations and adequate recreational facilities frequently generate ten times as many economic benefits as the Missouri. For example, recreation on the Upper Mississippi River attracts 12 million people who annually spend \$1.2 billion, supporting 18,000 jobs.

Question 2. The Missouri River Basin Association, which I know you are familiar with, has recently released a planning report with many recommendations for the management of the Missouri River. One of those recommendations is that the Corps should include bank stabilization in the Missouri River operation and maintenance budget. Do you support this recommendation?

Response. Although we support efforts to create additional recreational opportunities along the Missouri, American Rivers strongly opposes additional bank stabilization by public or private interests until the Corps of Engineers completes a cumulative impact statement which predicts long-term environmental impacts. Although we are aware of the concerns of floodplain landowners, we suspect that the environmental costs of additional bank stabilization heavily outweigh any economic benefits.

Historic efforts to stabilize the Missouri River have dramatically reduced habitat for river wildlife and increased flood losses by encouraging floodplain development. The original Missouri River was characterized by continuous bank erosion, which created a wide variety of channel depths and speeds. The channelization of the Missouri by the Corps of Engineers replaced the meandering channels, islands and floodplain wetlands of the historic river with a single, deeper and faster canal that has diminishing ability to support life. Scientists have linked bank stabilization with the decline of one-fifth of the fish species native to the Missouri River. In particular, bank stabilization eliminates the slow flowing shallow water habitat where river wildlife can feed, conserve energy and reproduce. Additional bank stabilization in the Dakotas and Montana will further imperil the least tern, piping plover and pallid sturgeon, species considered endangered and threatened by the U.S. Fish and Wildlife Service.

Furthermore, additional bank stabilization has historically been accompanied by floodplain development, which has in turn led to steadily increasing flood losses in Missouri River communities. Many homes, built in portions of the floodplain or floodway, have been flooded three or more times and several homes have been flooded nine times. Until riverside communities in Nebraska and the Dakotas take affirmative steps to discourage development in flood prone areas, Federal involvement in bank stabilization would be inappropriate.

An adequate study of bank stabilization impacts and needs would consider a range of alternatives, including bank stabilization practices which employ natural materials such as willow mats and easements which permit some erosion and deposition within the Missouri's meander zone.

Question 3. Mr. Faber, your organization has always been a strong supporter of valuing recreation on our Nation's rivers. Could you comment on the recreation proposals in the Administration's bill (the recreation fees and the Water Foundation) and perhaps suggest to us additional ways the Corps could enhance its recreation mission.

Response. American Rivers strongly supports efforts to boost Corps spending on recreational facilities, including the recreation fee program proposed by the Clinton Administration. We also support the Water Foundation included the Administration's proposals for the Water Resources Development Act of 1998 but urge Congress to increase the Federal contribution.

According to Federal agencies, recreational use of the Missouri River alone generates more than \$114 million in annual economic benefits, supporting thousands of jobs in riverside communities. More than 10 million people annually recreate at developed recreationsites along the Missouri, including sightseeing, hunting, fishing and boating. Actual recreational use of the river, including sightseeing at undeveloped sites, is thought to be considerably higher. Nebraska estimates that use of the Missouri River in Nebraska generates more than \$300 million in annual economic benefits for riverside communities. Visitors to natural resources like the Missouri spent \$29.2 billion in 1996 to watch wildlife, according to the U.S. Fish and Wildlife Service. Fishing and hunting produced even greater economic returns.

Unfortunately, construction and maintenance of recreational facilities, wildlife viewing and hunting areas, and habitat for wildlife is a low priority for the Corps of Engineers. Although recreation on the Missouri produces ten times the benefits of commercial navigation, the Corps spends less than \$1 million annually to maintain recreationsites along the river. By contrast, the Corps spends \$3 million to \$4 million annually to maintain the navigation channel. And, recreation on and along the Missouri, unlike navigation, is expected to grow as the Nation celebrates the 200th anniversary of Lewis and Clark's Voyage of Discovery.

The recreation fee program proposed by the Clinton Administration will help end this disparity by allowing river managers to retain a portion of the fees they collect at Corps facilities. In recent months, many Corps facilities have been forced to reduce services or close due to lack of funding. Allowing Corps officials to retain some of the fees they collect will permit proper maintenance of these facilities, and allow the Corps to construct new facilities to meet growing demand for outdoor recreation. Corps facilities are the most heavily used Federal recreational facilities in the Nation. But while no Corps function provides as many direct benefits to Americans as the construction and maintenance of recreational facilities, most Corps resources aid a handful of special interests.

Although we support the fee program, we urge the Congress to consider other measures which restructure the maintenance program of the Corps of Engineers to meet growing recreation and environmental needs. The Water Foundation proposed by the Clinton Administration will effectively stretch existing Corps resources by matching Federal dollars with funds acquired from foundations and other private sector sources. However, we are concerned that funding levels are simply too low to make an effective contribution. The National Fish and Wildlife Foundation (NFWF) has successfully expanded the ability of the U.S. Fish and Wildlife Service to protect and restore wildlife habitat, but Federal funding for NFWF tops \$5 million annually.

[From the Mississippi Monitor, April 1998]

VISION STATEMENT OF THE THIRD UPPER MISSISSIPPI RIVER SUMMIT

The following are excerpts from the vision statement from the third Upper Mississippi River Summit:

- By September 1998, a task force shall review and seek to identify gaps between existing and proposed studies to outline an integrated planning effort. This planning effort will address the needs and impacts of navigation, flood damage reduction, recreation, floodplain and aquatic habitat, and watershed nutrient and sediment inputs.
- Continue enhanced pool management in pool 8, 13, 24, 25, & 26, identify other opportunities for pool management such as the Illinois River, and engage all stakeholders.
- Innovative river training structures which achieve multiple-use values.
- Operations and maintenance activities which enable increased environmental benefits while maintaining a safe and dependable navigation system.

- Encourage voluntary adoption of economically viable and ecologically sound land and water management practices which improve biotic resources and water quality.
- Support and expedite the development of a habitat needs assessment to guide restoration activities such as EMP projects and monitoring. This habitat needs assessment will reflect a collaboratively developed scope of work.
- Support the development of educational facilities, programs, materials and web sites about all aspects of the Mississippi River.
- A comprehensive profile of the region that describes the total economic values (such as commercial, recreational, tourism, and other natural resource-based values) derived from the river.
- Restore 60,000 acres of floodplain habitat by making the Upper Mississippi River flood plain a high priority for Federal conservation easements. In addition, coordinate Federal, State, local and nonprofit programs to acquire fee title from willing sellers for conservation purposes, and work with landowners to protect and restore private lands within the floodplain by increasing funding for conservation programs like Partners for Fish and Wildlife and the Wildlife Habitat Incentives Program.
- Support the U.S. Fish and Wildlife Service, as part of the revision of refuge Comprehensive Conservation Plans, in evaluating expanded refuge boundaries to acquire land from willing sellers in the Upper Mississippi River floodplain.
- Improved operation and maintenance for the Mark Twain National Wildlife Refuge and the Upper Mississippi River National Wildlife and Fish Refuge.

VISION STATEMENT III—UPPER MISSISSIPPI RIVER SUMMIT

Vision for the Upper Mississippi River—To seek long term compatibility of the economic use and ecological integrity of the Upper Mississippi River.

Objective of Summit Meeting—To seek commitment to develop a multi-interest strategy for managing the Upper Mississippi River.

Whereas:

- (1) The Upper Mississippi River is for purposes of this document defined as the main stem of the Mississippi River from Minneapolis, Minnesota, to Cairo, Illinois, recognizing main stem impacts from measures taken throughout the entire 714,000-square mile watershed;
- (2) The Upper Mississippi River is a multi-purpose resource recognized by Congress as both a "nationally significant ecosystem and a nationally significant commercial navigation system" (*Section 1103 of 1986 Water Resources Development Act*);
- (3) The Upper Mississippi River is important for economic and non-economic uses;
- (4) The initial Summit Meetings focused on identifying natural resource and economic issues of the Upper Mississippi River, we now need to advance implementation of established objectives.

Therefore:

We are committed to:

- (1) Collaboratively address Upper Mississippi River needs.
- (2) Identify and prioritize issues and geographic areas in which cooperative action is most likely.
- (3) Seek ways to remove obstacles to cooperative action within existing programs and authorities.
- (4) Seek funds and/or new authorities, as appropriate for the following:
 - By September 1998, a task force shall review and seek to identify gaps between existing and proposed studies to outline an integrated planning effort. This planning effort will address the needs and impacts of navigation, flood damage reduction, recreation, flood plain and aquatic habitat, and watershed nutrient and sediment inputs.
 - Continue enhanced pool management in pool 8, 13, 24, 25, and 26, identify other opportunities for pool management such as the Illinois River, and engage all stakeholders.
 - Innovative river training structures which achieve multiple-use values.
 - Operations and maintenance activities which enable increased environmental benefits while maintaining a safe and dependable navigation system.
 - Encourage voluntary adoption of economically viable and ecologically sound land and water management practices which improve biotic resources and water quality.
 - An evaluation of the current and future physical structure of the river flood plain under current management practices and the development of models (e.g.

GreatRiverSIM, LMS, and others) to achieve a greater understanding of the economic and ecological interrelationships of management alternatives;

- Support and expedite the development of a habitat needs assessment to guide restoration activities such as EMP projects and monitoring. This habitat needs assessment will reflect a collaboratively developed scope of work.

- Support the development of educational facilities, programs, materials and web sites about all aspects of the Mississippi River.

- Encourage the development of brief vision statements (maximum one page) including measurable objectives by each stakeholder group that can be shared in preparation for the 1998 Interim Report.

- A comprehensive profile of the region that describes the total economic values (such as commercial, recreational, tourism, and other natural resource-based values) derived from the river.

- Restore 60,000 acres of floodplain habitat by making the Upper Mississippi River flood plain a high priority for Federal conservation easements. In addition, coordinate Federal, State, local and nonprofit programs to acquire fee title from willing sellers for conservation purposes, and work with landowners to protect and restore private lands within the floodplain by increasing funding for conservation programs like Partners for Fish and Wildlife and the Wildlife Habitat Incentives Program.

- Support the U.S. Fish and Wildlife Service, as part of the revision of refuge Comprehensive Conservation Plans, in evaluating expanded refuge boundaries to acquire land from willing sellers in the Upper Mississippi River floodplain.

- Improved operation and maintenance for the Mark Twain National Wildlife Refuge and the Upper Mississippi River National Wildlife and Fish Refuge.

(5) Convene again in approximately 1 year to review progress and reevaluate strategies, with a progress report in 6 months.

FOR A FLOOD-WEARY NAPA VALLEY, A VOTE TO LET THE RIVER RUN WILD

(By Timothy Egan)

NAPA, CA—APRIL 18.—A good 64 inches of rain has pelted this valley of fine wine and pursuers of the sublime since last July. So last month, in the middle of yet another El Nino-driven storm, Napa Valley residents went to the polls and decided to do something about it.

By a two-thirds majority, Napa County voted to raise taxes to pay for ripping out its flood-control system, allowing the near-dead Napa River to return to life and run wild for much of its 55 miles. After suffering 27 floods in less than 150 years, with flood controls, the Napa Valley now will take a chance with unfettered nature.

In a State where virtually every majority river is shackled by a dam, pinched by levees or siphoned for use by distant cities, the vote in Napa amounts to a call for revolution in the Nation's war against high water.

By voting to let the river run free, reclaiming much of its own meandering path, Napa residents have also steered the Army Corps of Engineers, an agency that usually acts like the orthodontists of nature, on a new path.

"What we will be doing in Napa is radically different from anything we have ever done before," said Jason Fanslau, a Corps spokesman in Sacramento. "It's going to totally change the way we do business."

Under the Napa plan, some of the dikes and levees built to keep the river in a straight channel—largely without success—would be lowered or removed. Bridges that block the flow of high water would be raised or torn down. People living in areas that regularly flood would be bought out and asked to move. About 600 acres of low-lying land would be given back to the river, as wetlands. The river's water will go where it usually goes in floods, but in the future nobody will live there.

In Napa, the change is coming from voters: three times in the last 22 years, the country has voted down Corps proposals for expanding its traditional concrete-walled flood control system. But the engineers are also undergoing a rethinking of their own.

Since the epic Mississippi River floods in 1993, the Corps has taken a long second look at its century-old efforts to hold back flooding rivers with dams, levees, diversions and drainage ditches. A levee system unrivaled by anything but the Great Wall of China has not only failed to keep the Mississippi between its banks, but also made floods downriver more severe by blocking natural outlets for the rising waters.

Rather than rebuilding old, flooded structures, Federal authorities have been buying up property in the Mississippi floodplain. But the new philosophy has yet to

penetrate all of Congress—where the California delegation has been trying to get money for at least one new billion dollar dam—nor until the Napa vote had it been tested at the ballot box.

The Napa plan is the most systematic effort in the country to try what is known as the “living rivers” approach to improve flood control. In South Florida, the Corps is similarly dismantling dikes and dams, but in an effort to restore the Everglades.

The Napa Valley’s existing network of braces, dikes and levees, while protecting some people from flooding, sends so much water downstream so quickly that it always manages to spill over somewhere.

The plan now is to combine ecology and engineering. Some dikes and reservoirs will be strengthened to slow the river in crucial places. But dredging and straightening the riverbed will be largely abandoned, and in other sections, the river will be allowed to widen during floods, filling the marshlands south of the city of Napa. These restored wetlands will work as a sponge, the thinking goes.

The cost, over 20 years, will be \$220 million, half paid by the Federal Government, and half coming from a half-cent rise in the county sales tax and from the State.

To many who live in Napa, the most famous wine-growing region in the United States, the price is a bargain. Floods from the last 40 years have cost more than \$500 million in property damage.

“For over a century, we have fought a losing battle against the Napa River,” city officials wrote in a voter’s guide published before last month’s election. “We have failed because we didn’t respect the river’s natural tendencies.”

California requires a two-thirds majority to raise the local sales tax. The vote in Napa just made that threshold, getting 68 percent, or 308 votes more than needed, out of more than 27,000 cast. Opponents of the measure, who did not mount an organized campaign, worried that the plan would not offer enough certainty for future years.

The plan seems radical because it calls on people to trust that a raging, chocolate-colored river, if allowed to reclaim its old floodplain, will ultimately provide more protections than the existing network of levees, decades of dredging or a plan once backed by the Corps to line the river with concrete.

“It will require us to go wider instead of deeper,” said Paul Bowers, the Corps of Engineers official who will co-manage the project with the county. “That was the biggest issue: Will people be able to give up that much land to restore a river?”

Napa County officials say they will buy out several businesses, a trailer park, some warehouses and about 16 houses. They will raise bridges that have served as blockage points to high-charging rivers. Most of the farmland, from high-quality vineyards on down, will stay just that, subject to floods in the dormant season in winter, but dry in California’s typical eight rainless months.

But some farmland will be bought. Joe Ghisletta 3d, whose family has owned farmland in Napa Valley for nearly a century, will sell 68 of the family’s 192-acre hay farm to the county; it will revert to a marsh.

“I think over all the whole plan is going to be a blessing for this valley,” Mr. Ghisletta said.

Tourism is big business in the valley, which gets about five million visitors a year. The constant television images in recent years of couches floating down the Napa River, or people taking rowboats to flooded homes, are not considered the best advertising.

“Image is everything in this valley,” said Moira Johnston Block, president of Friends of the Napa River, a citizens group that was instrumental in bringing the living river plan to the table. “The floods have been the most ongoing, negative image. Some of the winemakers saw this plan as image protection.”

During the campaign, most of the vineyards promoted the plan. But despite the weekend traffic jams of limousines touring the wine country, Napa is much more than the gilded valley that tourists perceive, Ms. Johnston Block said. The city of Napa, where 70 percent of the voters live, is largely blue collar, and the county is full of fifth-generation farmers who live by the whims of weather.

David Prewitt, who lives in a trailer park that is to be moved, said he had to abandon the park in January and February because of high water. A 20-year resident of Napa, he said he generally favored the plan.

“They had to do something,” Mr. Prewitt said, sitting in the bright sunshine of a day when Napa’s hills were brilliant green from the rains. “They’ve dredged this river time and again, and put up flood walls, and still it always seems to go over its banks.”

Whether other communities will adopt the Napa plan is uncertain. To the east, the Sacramento River and its side creeks are lined by more than 1,000 miles of levees, protecting much of the city of Sacramento. But new housing developments are

planned for areas that have seen frequent floods over the last two decades, and business leaders are promoting a large dam for the American River, saying it will allow the Sacramento area to grow.

Nationally, reimbursing people for flood damage costs about \$5 billion a year, from disaster aid and related help. The Army Corps of Engineers, the agency charged with flood protection, seems committed to the new direction.

"Napa will be the showcase, because there's nothing quite like it anywhere in the country," said Homer Perkins, a spokesman for the Corps in Washington.

The test for Napa will come 10 years or so down the road, when the living river plan is complete. Ms. Johnston Block said she had an image of a benign river: "You will see a living river, a restored river downtown, with marshes and wildlife on one side and latte and wine on the other."

the Corps is more prosaic. "I think, 5 to 10 years from now, when it starts to rain in the winter, people will be able to sleep at night," Mr. Bowers said.

PREPARED STATEMENT OF GROVER FUGATE, ON BEHALF OF THE RHODE ISLAND
COASTAL RESOURCES MANAGEMENT COUNCIL

INTRODUCTION

Good morning. My name is Grover Fugate, I am the Executive Director of the State of Rhode Island Coastal Resources Management Council (RICRMC). I would like to thank the subcommittee for the opportunity to present RICRMC's concerns and interests in the Water Resources Development Act of 1998 (WRDA). This testimony will focus upon Rhode Island's need for replenishment projects and the national benefits derived from them.

BACKGROUND

The south coast of Rhode Island is a southwest—northeast oriented, micro-tidal (0.8–1.2 m mean and 1.6 m spring range), sediment-starved and wave-dominated shoreline characterized by alternating headlands and barriers. The coast is most susceptible to south and southeast waves generated by storms that pass to the west of Rhode Island. Shoreline erosion along the Rhode Island coast ranges from 0.1 feet per year (.02 m/yr) to 3.9 feet per year (1.2 m/yr).

The Rhode Island southern shoreline is in many ways typical of other coastal areas along the east coast of the U.S., and the processes that formed other east coast shorelines are at work in Rhode Island. Yet the south shore of Rhode Island is unique due to the combination of glacial depositional processes and subsequent post-glacial sea level rise that have resulted in the current barrier/headland configuration of the Rhode Island coast.

About 14,000 years ago the global climate warmed up very rapidly and added much additional glacial meltwater to the ocean, causing the sea to rise rapidly across Block Island and Rhode Island Sounds to arrive in the vicinity of the present shoreline by 4,000 years ago. Ocean waves eroded the glacial deposits, carrying sediment in wind-driven currents alongshore and depositing it as barrier spits in the adjacent low-lying areas between the topographically higher headlands. As the spits developed and grew alongshore from the headlands, the low-lying areas behind the spits were almost entirely sealed off from the ocean, forming coastal lagoons (coastal ponds) connected to the sea through narrow inlets. The inlets are the conduits for the exchange of water and sediment in and out of the lagoons, and before they were fixed in place by jetties, they were maintained by tidal forces and by surges from storms. From the time of this early spit formation to the present, the glacial river deposits and glacial till have continued to erode, and the barrier spits and coastal lagoons have moved landward and upward, all by the force of storm waves and storm surges controlled by the level of the sea at the time of the storm. The present arrangement of barriers and headlands is controlled by the topography of the glacial till and glacial river sediment. The areas of glacial deposits with higher relief are exposed at the surface and form the present headlands, while those areas below mean low water are now topped by barrier spits or submerged by coastal lagoons.

RICRMC

The State of Rhode Island has endeavored to restrict new coastal development and limit repairs to existing development in order to mitigate coastal hazards, provide and protect recreational beach areas and reduce the expenses incurred by towns, the State of Rhode Island, and the Nation due to storm damage and erosion.

It is the policy of the State of Rhode Island (through creation and operation of RICRMC):

“to preserve, protect, develop, and where possible restore the coastal resources of the State for this and succeeding generations through comprehensive and coordinated long-range planning and management designed to produce the maximum benefit for society from such coastal resources . . .”

The process, which includes erosion-rate driven setbacks for new construction or significant alterations, property acquisition and public education, is a long-term policy. The benefits realized will continue to increase through time, however, there are several immediate concerns that need to be addressed. These include some measure of frontal erosion protection for existing structures, the need for recreational beaches and public access and environmental restoration.

EXISTING PROPERTY PROTECTION

In order to protect ecological systems, provide lateral public access, prevent detrimental affects to adjacent properties and provide recreation beaches, structural shoreline protection is prohibited in most areas of Rhode Island. While this policy ensures for future use of these areas, current erosion has placed many properties and municipal infrastructure in immediate danger from small to moderate sized storms. These property owners, town and State managers, need interim measures to protect property and infrastructure while the long-term planning continues and solutions are implemented (property acquisition and relocation/elevation of structures). Beach replenishment is the interim measure. Replenishment does protect property and infrastructure without detrimental affects to access or recreational beaches. The expense of replenishment has been criticized as wasteful spending. Without some acceptable measure of protecting existing property while development is moved landward away from the immediate coast, similar expenses will be incurred (by the Nation) due to storm events and long-term erosion.

TOURISM/RECREATION/PUBLIC ACCESS

The tourism economy in Rhode Island has recently exceeded the \$2 billion mark. This revenue is generated primarily by water-adjacent activities (beaches and boating). This source of revenue, which can help to mitigate coastal issues, requires the presence of recreational beaches for the persons visiting the beach for the day, renting a cottage for a week or seasonal homeowners as well as regional, national and foreign tourists. In addition to the tax revenues lost from the tourism and recreation economy, numerous jobs will be lost and lifestyles affected.

ENVIRONMENTAL RESTORATION

The Army Corps of Engineers is currently conducting a feasibility study to restore habitat and improve water quality in coastal lagoons that have stabilized inlets. Part of this restoration includes dredging of settling basins and flood tidal deltas. This type of project benefits ecological systems, improves water quality. Additional benefits include improved navigation (providing recreational opportunities and supporting local economies) and puts sand on the beach (protecting property, infrastructure and providing recreational beaches).

CORPS PROJECT STRUCTURE

In order to meet the cost to benefit ratios of a federally funded project, the project area must be densely developed. Much of Rhode Island's coastline, including the more developed sections, do not meet the Federal ratios. This policy encourages development and maintenance of overly developed areas constituting large hazard risks and future expenses. The State of Rhode Island is actively trying to limit coastal development which will reduce the Federal burdens of storm and erosion damages to property and infrastructure.

Where environmental restoration opportunities exist, the funding structure for these types of projects should reflect the benefits realized. When there are environmental restoration opportunities and/or an existing long-term commitment and plan to reduce development that will be impacted by coastal processes, the required cost to benefit ratio and non-Federal cost share should be adjusted accordingly.

Additionally, the existing reconnaissance/feasibility study/implementation phase organization of Corps projects is cumbersome, inefficient and discouraging. The organization of projects needs to be reviewed to reduce the cost to both the Federal Government and the non-Federal sponsor as well as result in more implemented projects and less expensive studies.

CONCLUSION

Rhode Island needs federally sponsored replenishment projects as interim protection for existing development and recreational beaches. Design and funding of these projects should reflect the State's commitment to reducing coastal hazards and protecting and restoring the environment. National benefits include a reduction in post-storm damage expenses, improved environment as well as sustained and increase of revenue from the recreation and tourism economy.

Rhode Island desires to continue discussion of these issues to the mutual benefit of towns, States and the Nation. Thank you again for the opportunity to express our interests and concerns.

 RESPONSES OF GROVER FUGATE TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question 1. What are the most important water resource needs in Rhode Island?

Response. The most important water resource needs in Rhode Island are water quality, frontal erosion and navigational dredging. All three of these issues affect recreational activities (boating, fishing, swimming), commercial fisheries (shell fishing, aquaculture) and the quality of our ecological systems.

Improved water quality ensures the availability of swimming beaches and improves the habitat of species important to recreational and commercial users as well as providing the basis for a healthy environment. A strong and healthy environment will, in turn, minimize damage from oil spills, etc.

Frontal erosion is a constant problem along the majority of the Rhode Island coast. Although the State of Rhode Island has adopted regulations to limit current and future development along the immediate coast, existing as well as the limited amount of new development continues to be problematic. The process of moving development landward away from the coast through setback regulations and property acquisition is a slow process. In the interim, Rhode Island needs to help protect existing public and private property as well as maintain recreational beaches.

Question 2. Is there anything the Army Corps could improve or do differently to improve the situation in our State?

Response. At present there are two main problems with the management of Corps projects. The first is Benefit/Cost ratios that reward less than desirable development along the coast and provide no assistance to less developed areas that need interim aid as mentioned in the response to question 1. Beaches along which there has been and continues to be dense development receive the benefit of Corps projects. Rhode Island's most developed beaches do not meet the necessary benefit/cost ratios due to Rhode Island's efforts to limit development in these areas. It is CRMC's belief that such communities and States should benefit preferentially over areas that do not exercise restraint on coastal development.

Second, the Corps some times narrow interpretation of a project authorization can cause projects to be more complicated, than necessary. Particularly projects that involve a habitat restoration component are not necessarily conducive to hard and fast engineering solutions. A more successful approach would allow the Corps to show more flexibility to respond to local conditions and needs, so that rigid stances aren't taken and more creative and cost effective solutions can be pursued.

For example, local experts should be consulted at the earliest possible stages of project design and continue to be part of the process during the design phase. The localities are often aware of specifics that are critical to project design, that standard approaches do not take into account. Currently, it is apparent that the Corps designs projects based on standard operating procedures that may have been fine for erosion control projects that they have been doing for years, but the newer ventures involving the management of sustainable ecosystems, need a more flexible, less centralized paradigm to cope with these projects. Otherwise, the Corps ends up designing projects which draw critical comments from local scientists. The obvious result is, the local experts then suggest significantly different project methods, design and scope that would cause a complete redesign of the project.

Projects would be more successful and efficient if the Corps had a process where local expert scientists in specific fields could be brought in as needed, to design the project and the Corps rely less on internal standard approaches. This may be possible, if it is clear in the authorization that the end goal of sustainable environments is more important, than the Corps need to control the process. And that the need to cut small costs, by the utilization of as much in house Corps talent as possible, may result in larger total operation cost, if the most direct and effective sources of information are not used.

Question 3. What is the status of the South County shoreline protection and environmental restoration feasibility study?

Response. Currently, the project is behind schedule due to the Corps limited expertise and knowledge of recent advances in environmental restoration research and methods. As a result, local scientists are now working (on their time) with the Corps to develop more appropriate research methods. Although the final project will be beneficial and provide necessary data, the first year field season (now) is quickly passing. The feasibility study will only have 1 year of monitoring instead of the originally designed 2 year monitoring.

Question 4. Do you have any estimates on the overall cost of potential projects along the South Coast?

Response. At present, given the very limited nature of the current information on this project CRMC can only offer the very tentative and rough estimate of \$10 million to solve several immediate problems (8 to 10 projects). However, CRMC has recognized the need of the State of Rhode Island to have a dredge program independent of the Corps. This dredge program would conduct small scale projects without major assistance from the Corps and maintain Corps constructed projects such as the Salt Pond project, when implemented. CRMC has endeavored to acquire a dredge using State funds (as of yet unsuccessful). Federal assistance either through the Corps or elsewhere would be most expedient and in the long run, it is CRMC's opinion that a State owned and operated dredge would be less expensive for both the State of Rhode Island and the Federal Government.

The committee may wish to require this analysis of options for future projects. It may be more cost efficient to engage in limited equipment purchases, with up front local agreements, rather than continued Federal maintenance.

Question 5. While we await the long-term feasibility study, what should be done in the interim to protect the coastline of Rhode Island? Do you have sufficient State resources to draw upon to conduct interim and long-term solutions?

Response. As previously mentioned, Rhode Island needs interim beach replenishment, navigational dredging, maintenance of breachway settling basins and environmental restoration. In the respect that all of these issues are inter-connected, a Rhode Island/South County dredge program would provide the ability to manage these issues quickly and efficiently. Although it is possible, through the pending Rhode Island Oil Spill Accident Recovery Bill (OSPAR), that a small dredge could be purchased for these purposes, CRMC attempts to date have been unsuccessful.

The State of Rhode Island did provide assistance (\$45,000; 50 percent of material costs) to the Town of South Kingstown for a small replenishment project at their severely eroded Town Beach. The State was unable or unwilling, however, to spend money along beaches abutting private property.

While nourishment does and will continue to play a vital role in beach management and flood damage reduction, we need a concerted Federal, State and local research effort at understanding an integrated approach to beach management, coastal erosion and flood damage reduction.

PREPARED STATEMENT OF KENNETH E. PRINGLE, MAYOR, BOROUGH OF BELMAR, NJ

Good morning, Mr. Chairman and members of the committee. My name is Ken Pringle, and I have been the Mayor of the Borough of Belmar, New Jersey for 8 years. I am pleased to be here to bring my perspective as a small town mayor to the Federal shore protection program.

Belmar is a one-square mile community, with a year round population of 5,700 residents. Despite our small size, Belmar ranks each year as the most popular tourist destination in Monmouth County, and one of the most popular in New Jersey. On an typical Sunday afternoon in the Summer, approximately 20,000 people will crowd onto Belmar's beautiful beaches, which are a little more than a mile long, and about 150 yards wide.

The Borough of Belmar has been an active partner with the State of New Jersey and the Corps of Engineers in the largest shore protection program in the United States. This project includes 11 municipalities and covers 21 miles of New Jersey's shoreline.

I am here today to urge continued support for the Federal program and to thank the committee for recognizing the importance of this investment in our shore communities. I want to note the long-standing contributions of Senator Lautenberg to maintaining this investment. He has been a tireless champion of our coastal areas and to environmental protection.

Belmar was an early convert to the cause of beach nourishment. During the infamous Nor'easter of 1992, Belmar, like the rest of the Jersey Shore, was battered by a horrific combination of high winds, abnormally high tides, and relentlessly pounding surf. Along the southern half-mile of Belmar's coast, which had eroded away to almost nothing over the prior years, seven blocks of boardwalk and two pavilions were completely destroyed, including three blocks of boardwalk that were "protected" by a stone seawall. Other towns on either side of us, like Spring Lake, Avon and Bradley Beach, were devastated by the same storm, and lost their entire boardwalks and sustained enormous damage to their beachfront pavilions, at a cost of several million dollars in Federal Emergency Management Administration funds.

At Belmar's northern end, however, we sustained very little damage to our boardwalk and beachfront buildings. The reason our northern end fared so much better than our southern end was that our northern beaches were much wider because the Shark River Inlet traps eroding sand carried northward by the littoral drift. It became clear to everyone that the best defense against ocean storms is not seawalls, jetties or other hard structures, but rather wide sloping beaches that easily dissipate the incredible force of a storm's waves.

As a result of what we learned from the Nor'easter of 1992, residents of Belmar and other towns from Manasquan to Deal hailed the arrival of the Army Corps and two large ocean-going dredges in the summer of 1997. That dredging operation, which proceeded around the clock for several months, pumped tens of millions of cubic yards of sand on our beaches, literally creating beaches before our eyes.

Despite a series of nor'easters on the New Jersey coast this past winter and spring, Belmar's new beaches survived extremely well, with minimal sand loss. More importantly, as a result of the increased width of our southern beaches, we were able for the first time to leave in place this winter the portable boardwalk sections that we installed after the Nor'easter of 1992,¹ which was a boon to the hundreds of runners, walkers and bicyclists who use that boardwalk every winter day. The wider beaches have also significantly expanded Belmar's capacity for beachgoing tourists. In fact, Belmar's new south end beaches were able to be used this past weekend as the site for a large amateur volleyball tournament, a prospect that would have been unthinkable just a year ago.

As other New Jersey shore communities will attest, the Corps of Engineers' projects have time and again proved their resistance to devastating storms. Based upon our experience in Belmar over the past winter, and what seems to be the increasing frequency of storm activity off our coast, it is clear that the Corps of Engineers' project in Monmouth County will save millions of dollars in damages over the next several years.

The Clinton Administration has proposed a change in the cost-sharing formula for periodic nourishment of sandy beaches. Under this proposal, non-Federal project sponsors would pay 65 percent, instead of the current 35 percent, for periodic nourishment. Because the Borough of Belmar will be due in the next few years for its first periodic renourishment, I am extremely concerned about the additional financial burden this plan will place on us. There is no question that we are willing to pay our fair share of the cost of financing shore protection projects. However, Mr. Chairman, this local share—whether for initial construction or periodic renourishment—should be dependent upon the Federal Government holding up its part of the bargain. That means that we must be assured of a reliable funding level for these projects. This funding level should be based upon a comprehensive assessment of the projects around the country that are ready for construction, ready for periodic renourishment, and currently in the construction pipeline.

The Borough of Belmar does its part to maintain a stable, reliable source of local funding for the shore protection program. Because we are unable to charge a hotel or local sales tax, my community and most others along the New Jersey coast fund the cost of our beaches by charging an admission fee to residents and non-residents alike. By law, this fee can be used solely for the cost of operating and improving our beaches. Obviously, we think it is important that these fees remain affordable to families. Belmar's 10 percent share of the most recent beach nourishment project is \$612,899.79. Thanks to great weather over the past two summers, and some forward financial planning, we will be making a cash downpayment of \$300,000 toward that bill when it comes due later this summer, but will need to borrow the balance, and pay it off over the next several summers. It is important that the local share of future periodic renourishment projects be reasonable, so as not to cause the price

¹ In the aftermath of the Nor'easter of 1992, and with the long-planned Army Corps beach nourishment project still in the unfunded distance, Belmar replaced its destroyed boardwalk area with portable boardwalk sections, which are removed each winter. We also installed restroom facilities that can be disconnected and towed inland after each summer beach season.

of beach admission to exceed the reach of the tens of thousands of families from New Jersey, New York and Pennsylvania who regularly use our beaches.

Mr. Chairman, shore communities around the country believe that beach nourishment projects are in the national interest, not just in the State and local interest. Beaches provide a vital, first line of defense against storms and flooding. Every dollar of Federal investment in shore protection reduces the cost of emergency assistance that would otherwise be paid through the Federal Emergency Management Administration, and prevents untold losses in private investment, much of which is either uninsured or uninsurable. Moreover, the revenues from tourism in New Jersey don't go to local governments, which rely primarily on property taxes for their revenue. Rather, they go to the State and Federal treasuries. The New Jersey shore is a tremendous economic engine. In 1996, travel and tourism in New Jersey's five coastal counties generated over \$12 billion and were responsible for 161,000 tourism-related jobs, with a payroll of over \$3 billion. Protection of this industry is a worthwhile Federal investment.

I want to thank you again for giving me the opportunity to share my views with you today. I would be pleased to try to answer any questions you may have.

PREPARED STATEMENT OF STEPHEN H. HIGGINS, BROWARD COUNTY DEPARTMENT OF
NATURAL RESOURCE PROTECTION

DEVELOPING AN ENHANCED NATIONAL SHORELINE PROTECTION PROGRAM

SUMMARY

1. Sandy beaches are a critical, integral part of the Nation's coastal infrastructure, providing the first line of defense against storm waves and forming the basis for the economic vitality of many coastal communities, regions and States. We believe that Federal, State, and local investments in beach erosion control and in the proper management of beaches, inlets, and shorelines are returned many times over in revenues generated by tourism and commerce, by tax increases inspired by higher property values and incomes, by mitigation of storm wave damage to property and infrastructure, and by the elevation of the quality of life for coastal residents and visitors.

2. Sand replenishment has been shown time and time again to be an effective method of shore protection based on both engineering and fiscal criteria.

3. The Federal role in shore protection and beach erosion control is clearly prescribed by current law, including the Shore Protection Act of 1996 (section 227 of the Water Resources Development Act of 1996).

4. The Administration's policy, announced in 1995, to terminate Federal financial assistance for most new shoreline protection projects is already harming America's sandy beaches. Congress has repeatedly rejected that policy. However, the Administration has persisted in its efforts to enforce its policy.

5. Contrary to Section 227 of WRDA 1996, the Corps of Engineers is not on its own initiative conducting reconnaissance studies of new shoreline protection projects. It is not on its own initiative conducting feasibility studies of such projects, nor is it recommending to Congress the authorization of new shoreline protection projects. What work it is doing is either to complete its contractual responsibilities with regard to a dwindling number of shoreline protection projects or in response to congressional directives to proceed with studies. As of this date, there is not one new shoreline protection project which is under construction in the Nation using a single dollar of Federal funds.

6. The American Coastal Coalition calls on this subcommittee to insist, as part of WRDA 1998, that the White House Office of Management and Budget and the Army Corps of Engineers implement the letter and spirit of the Shoreline Protection Act of 1996 and the vast body of other Federal laws which clearly establish a Federal role and responsibility to participate in the repair and maintenance of sandy beaches.

7. While we believe it is appropriate for OMB to initiate discussions of enhancements to national shoreline protection policy, its first responsibility is to implement existing law and policy as established by Congress. If the Administration believes that changes in the national shoreline protection program need to be made, it should lay its proposals before Congress. Until that time, the bickering on this subject between the Administration and Congress must end. It is not serving the Administration's professed goal of achieving fiscal restraint. And it is not promoting the responsible management of America's coastal resources.

8. While we await any proposals that may be forthcoming from the Administration, there are steps that can be taken in WRDA 1998 that will make significant improvements in the national shoreline protection program.

A. We urge Congress to direct by statute that shoreline protection is one of the Corps' primary missions. Currently, the Corps' shoreline protection role is an outgrowth of its storm protection, flood control, and environmental restoration missions. Shoreline protection should not be a Corps stepchild.

B. Congress should direct the Corps to conduct its benefit-cost analysis of prospective shoreline protection projects by assessing the regional and national economic impact of the proposed project. Currently, the Corps limits its assessment primarily to an evaluation of property that is immediately adjacent to the beach. In no way does that limited analysis show (a) whether there is a national interest in constructing the project, or (b) what benefits can be expected to flow to businesses, jobs, or tax revenues at the regional or national levels from constructing a shoreline protection project. This regional economic benefit analysis was included in the language of the Shore Protection Act as passed by the House in 1996, but it was dropped in conference.

C. We recommend the establishment of a National Shoreline and Shore Erosion Data Bank. Several Federal agencies currently collect or have the ability to collect data that is vital to the management of our coastlines. In addition, data is collected by States, academic institutions, and private sector research facilities. To facilitate the long-term management of our shorelines, all interests should have access to all of the useful data they need to make responsible policy determinations. The authorization of a National Shoreline and Shore Erosion Data Bank in WRDA 1998 and the funding of that Bank in the Energy and Water Development Appropriations Bill for Fiscal 1999 and beyond would be a significant step toward pulling together and augmenting the available data and establishing a mechanism for its maintenance and dissemination.

D. We call on Congress to authorize a new National Shoreline Study to assess the regional and national economic impacts of beaches and to take a complete inventory of the condition of the Nation's sandy beaches. The last inventory was taken in the late 1960's, and there has never been a national assessment of the economic impacts of beaches. Without this data, it is impossible for Congress to consider major changes in national shoreline protection policy or to budget for the Federal share of beach repair and maintenance.

E. The Federal Government has a statutory and moral responsibility to mitigate the damage it has caused to beaches by constructing dams, dredging channels, and other similar actions. Language should be included in WRDA 1998 which assures that this mitigation responsibility can be used as the basis for Federal participation in a shore protection project.

F. One immediate change in policy that we strongly recommend would direct the Corps to place beach quality sand dredged from channels on adjacent beaches, regardless of whether it is the "least cost option." On many occasions, dredged material is disposed in the ocean because placement on a nearby public beach is not deemed by the Corps to be the "least cost option." Subsequently, taxpayers pay for pumping that sand back onto the beach as part of a shore protection project. Thus, the "least cost option" too often may result in a higher cost to taxpayers. We support statutory language in WRDA 1998 that directs the placement of beach quality sand dredged from a navigation project on nearby public beaches unless such disposal is not economically and environmentally sound.

G. In some areas of the country, near-shore sources of sand for beach nourishment are becoming scarce. Recognizing this fact, Congress adopted legislation making it possible for the Minerals Management Service to enter into agreements with the Federal Government as well as with non-Federal sponsors of beach nourishment projects to acquire sand from the Outer Continental Shelf. While Congress gave MMS the discretion to determine if it should charge non-Federal sponsors for this sand, the MMS has determined that, as a matter of policy, it will impose a charge. This will increase costs to State and local governments unnecessarily. Therefore, the American Coastal Coalition supports statutory language which removes from MMS the discretion to charge any fee for OCS sand to a non-Federal sponsor of a federally authorized shore protection project. While this issue is not technically within the jurisdiction of this committee, we believe that the jurisdictional issue can be overcome.

H. Among other changes that we recommend for your consideration is a requirement that the Corps implement a systems approach to sediment management using projects already in the pipeline as well as new projects in different parts of the country, and to analyze and report to Congress by a date certain on the effectiveness of this approach. This can be done in WRDA 1998 with the actual funding of projects provided in the Energy and Water Development Appropriations Bills for fis-

cal year 1999 and beyond. The testing of the systems approach to sediment management should in no way be used to defer any existing shoreline protection projects. In addition, we urge that Congress require the Corps to approach shoreline protection and navigation projects on a programmatic basis, rather than a project-by-project basis. Logic says that a programmatic approach to the planning of these two types of projects will provide Congress with the information it needs to make better decisions about project funding. That, however, may not be the case in all parts of the country. Once again, WRDA 1998 can be used to direct the Corps to implement a programmatic approach and report to Congress by a date certain. We urge this subcommittee to make it clear that the implementation of this and any other new shoreline protection mandates not be used in any way to defer action on existing or new shoreline protection projects.

Mr. Chairman, thank you for this opportunity to lay before this subcommittee some of the most pressing shore protection policy issues. We hope that your efforts will bring a swift end to the impasse between Congress and the Administration so that the Nation's coastal and fiscal resources will be better managed. I ask your permission to include our full statement in the hearing record.

INTRODUCTION

The American Coastal Coalition is the rapidly growing voice of U.S. coastal communities at the Federal level of government. Established nearly 3 years ago, our membership consists of local governments, local government officials, business people, property owners, and others who live or work in America's coastal communities. We appreciate this opportunity to appear today. While our organization focuses on several key areas of Federal policy, my testimony today will focus on national shoreline protection policy.

The American Coastal Coalition affirms that America's beaches are a critical, integral part of the Nation's coastal infrastructure, providing the first line of defense against storm waves and forming the basis for the economic vitality of many coastal communities, regions and States. We believe that Federal, State, and local investments in beach erosion control and in the proper management of beaches, inlets, and shorelines are returned many times over in revenues generated by tourism and commerce, by tax increases inspired by higher property values and incomes, by mitigation of storm wave damage to property and infrastructure, and by the elevation of the quality of life for coastal residents and visitors. Recent studies and surveys have documented the economic value of beaches to specific local communities, regions, and States, and while such studies are just beginning to be undertaken on a national level, it is intuitively obvious that thriving local, regional, and State coastal economies are necessary factors in a healthy national economy.

We firmly believe that beach nourishment is an effective method of shore protection based on engineering and fiscal criteria. By beach nourishment, we refer to sand placement or sand replenishment. The American Coastal Coalition believes that the Federal role in shore protection and beach erosion control is clearly prescribed by current law, including the Shore Protection Act of 1996 (section 227 of the Water Resources Development Act of 1996). Efforts to substantially reduce and eventually eliminate this role are clearly counterproductive. We believe that while historical Federal activities in this arena have been successful in terms of benefits and costs, current fiscal constraints as well as coastal engineering advances over the past quarter century mandate the development of an enhanced shoreline protection program based on policy clarity, comprehensiveness, economic efficiency, and technical effectiveness.

Furthermore, we believe the Federal Government must participate in the management of the Nation's sandy shoreline. This includes a strong fiscal commitment to sharing the costs of construction and periodic maintenance of beach nourishment projects with States and/or local governments. We believe this fiscal commitment can be fulfilled without significantly increasing Federal expenditure levels beyond those of recent years.

Recently, the White House Office of Management and Budget held a meeting attended by coastal residents, government officials, engineers, and economists to discuss shoreline protection policy. While we welcome this discussion and hope that it will produce concrete proposals during this session of Congress, we are deeply concerned that it comes after 3 years of efforts to eliminate Federal participation in beach nourishment projects. Prior to the initiation of those efforts, the Federal-State-local government partnership in beach nourishment had functioned as an outstanding example of inter-governmental cooperation to protect a vital part of the Nation's infrastructure. The past 3 years, however, have seen ever decreasing requests by the Administration for the funding of this program. In fact, the agreement

to establish a Working Group to discuss shoreline protection policy came only days after an Administration fiscal year 1999 budget request of less than a fourth of the level appropriated by Congress for shore protection in fiscal year 1998.

Based on the actions of the Administration over the past 3 years, the American Coastal Coalition will continue to work with Congress to enact changes in law during the current congressional session which will improve the effectiveness and fiscal responsibility of the national shore protection program. We seek the support of the Administration for these changes, which are based on the fundamental concept of strong Federal participation in the repair and maintenance of those sandy beaches that meet the standards for Federal participation established by law.

The American Coastal Coalition believes that the first responsibility of national shore protection policy must be to mitigate the harm to sandy beaches which has been caused by actions of the Federal Government. We believe that, wherever such harm has been caused, the Federal Government has a statutory responsibility to undertake any and all reasonable actions necessary to repair the beach erosion it has caused and to undertake additional steps to take effective action that will mitigate future damages, as well.

Not every sandy beach is an appropriate candidate for beach nourishment. For the large number which are, there must be an understanding and acceptance of the fact that beach nourishment has as its objective the reconstruction of a beach so that the net loss of sand caused by wave action and storms—and in many cases exacerbated by the existence of inlets and other forms of human intervention—is slowed to a minimum.

So long as we look at each “beach project” in a microcosm, we lose sight of the fact that it is part of a natural sand system that, in many cases, has been altered by human intervention. The existence of an inlet, for example, will naturally trap sand upward of the inlet, causing an accretion of sand, while starving the downward beach of sand. Beach nourishment can slow the net loss of sand on the downward portion of the beach, but it is highly unlikely to make that downward beach totally self-sustaining. Future periodic renourishment—meaning placing sand from an accreting region on all or part of the sand-starved portion of the beach—is an integral part of the beach nourishment process. It is by no means a sign of the failure of beach nourishment, but rather is a necessary and acceptable maintenance of critical infrastructure.

The American Coastal Coalition is greatly concerned about the potential for loss of lives and coastal property due to storms waves and surge. We believe that as a matter of general policy, healthy beaches with stable dunes afford the most effective and environmentally sound approach to protecting life and property while at the same time protecting and enhancing the economic and environmental interests of the region and the Nation.

Withdrawing from our coastlines is an unacceptable alternative to beach nourishment. The history of mankind is replete with evidence that people are drawn to coastlines for both economic and recreational reasons. Unless the coasts are cordoned off with barbed wire, that attraction will continue. Hindsight shows that some areas of the coastline are less conducive to the recreational and/or economic presence of human beings than others. That is equally true of the significant development which has taken place in riverine areas of the Nation. Using the combined tools of effective shoreline protection and hazard mitigation, the costs of maintaining these coastal regions and reducing the losses resulting from natural disasters can be substantially reduced. “Retreat” from highly developed coastlines, busy recreational beaches, or urbanized shorefronts is not an option.

We are opposed to over-development of coastal areas, and we believe that it is often appropriate for governmental policies to discourage or prohibit the development of pristine, undeveloped regions of the coastline. However, the only situations in which “retreat” is appropriate are those where the local community has decided to take that course. Federal policies should neither dictate retreat or make retreat necessary by withholding appropriate assistance (i.e., beach nourishment) from those regions which have been determined to meet accepted engineering and economic criteria for erosion control, and which are willing to share the costs and responsibilities of beach management with the Federal Government.

To achieve the level of funding for the study and construction of projects currently in the pipeline as well as to fund some or all of the initiatives discussed below, the American Coastal Coalition believes that the Congressional Budget Resolution must include an adequate amount for “Function 300” (which includes, but is not limited, to the Corps civil works program) and which includes report language which states that the Budget Committees place a priority on the full range of water projects that are included within this budget function.

IMMEDIATE INITIATIVES TO IMPROVE THE MANAGEMENT OF THE NATION'S
SANDY BEACHES

Knowing that significant changes in the national shoreline protection program must be implemented with caution over time, we nevertheless believe that a limited number of policy changes should be implemented during the current congressional session. Each of these will assist in the planning, implementation, and management of an enhanced Federal shoreline protection program, regardless of the specific elements of that program.

These initiatives include:

1. *Establishment of a National Shoreline and Shore Erosion Data Bank.* Several Federal agencies currently collect or have the ability to collect data that is vital to the management of our coastlines. In addition, data is collected by States, academic institutions, and private sector research facilities. To facilitate the long-term management of our shorelines, all interests should have access to all of the useful data they need to make responsible policy determinations. The authorization of a National Shoreline and Shore Erosion Data Bank in WRDA 1998 and the funding of that Bank in the Energy and Water Development Appropriations Bill for Fiscal 1999 and beyond would be a significant step toward pulling together and augmenting the available data and establishing a mechanism for its maintenance and dissemination.

2. *Study of the Regional and National Economic Impacts of Beaches.* Numerous studies on the local, county and State levels have shown the positive effect on regional economies and on the national economy, as well. What is needed is a nationwide study using uniform economic criteria that will reveal the magnitude and geographical dispersion of that benefit. Such a study must be authorized in WRDA 1998 and funded in the Energy and Water Development Appropriations Bill for Fiscal 1999 and beyond.

3. *Strengthening National Policy to Mandate Shore Protection as a Corps Responsibility.* It is the intent of section 227 of the Water Resources Development Act of 1996 (known as the Shore Protection Act) to make shore protection one of the primary missions of the Corps of Engineers. However, given the fact that the Corps has not interpreted this statutory language as creating such a mission, language must be included in WRDA 1998 which will accomplish this significant goal. Shore protection must no longer be considered ancillary to any of the Corps' other missions.

4. *Strengthening National Policy on Mitigation as a Basis for Undertaking Shore Protection Projects.* As stated above, the Federal Government has a responsibility to mitigate the damage it has caused to beaches by constructing dams, dredging channels, and other similar actions. Language must be included in WRDA 1998 which assures that this mitigation responsibility can be used as the basis for Federal participation in shore protection projects.

5. *Examine the Feasibility of a Systems Approach to Sediment Management.* We must require the Corps to implement a systems approach to sediment management using projects already in the pipeline as well as new projects in different parts of the country, and to analyze and report to Congress by a date certain on the effectiveness of this approach. This can be done in WRDA 1998 with the actual funding of projects provided in the Energy and Water Development Appropriations Bills for fiscal year 1999 and beyond. The testing of the systems approach to sediment management should in no way be used to defer any existing shoreline protection projects.

6. *Examine the Feasibility of a Programmatic Approach to Funding Shoreline Protection.* This is the logical complement to a systems approach to sediment management and the Data Bank, as well. If we approach shoreline protection and navigation projects on a programmatic basis—rather than a project-by-project basis—logic says that it will provide Congress with the information it needs to make better decisions about project funding. That, however, may not be the case in all parts of the country. Once again, WRDA 1998 can be used to direct the Corps to implement a programmatic approach and report to Congress by a date certain. Here, too, this mandate should not be used in any way to defer action on existing or new shoreline protection projects.

7. *Increase Funding for Coastal Research and Development.* Federal financial support for R&D efforts must be increased so that we can acquire the data needed to enable both the Federal Government and State governments to more effectively plan for and manage shore protection projects. Therefore, we support increased funding for the R&D efforts under the Corps' Coastal Engineering Research Center.

8. *Fund the Shoreline Demonstration Program.* A demonstration program to test alternative shoreline protection technologies in different parts of the country was

authorized by WRDA 1996 for a total of \$18 million over 3 years. So far, no money has been appropriated for this program. We urge funding this program at a level of \$6 million annually for Fiscal 1999, 2000, and 2001. It has been several years since the Federal Government funded such a demonstration program. During that time, coastal engineers and scientists have learned a great deal. That knowledge should be field-tested to see what works and under what conditions, if any, does it work.

9. *Beneficial Uses of Dredged Material.* One immediate change in policy would direct the Corps to place beach quality sand dredged from channels on adjacent beaches, regardless of whether it was the "least-cost option." On many occasions, dredged material is disposed in the ocean because placement on a nearby public beach is not deemed by the Corps to be the "least-cost option." Subsequently, taxpayers pay for pumping that sand back onto the beach as part of a shore protection project. Thus, the "least-cost option" too often may result in a higher cost to taxpayers. We support statutory language in WRDA 1998 that directs the placement of beach quality sand dredged from a navigation project on nearby public beaches unless such disposal is not economically and environmentally sound.

10. *Non-Federal Sponsors Should Not be Charged for Using OCS Sand.* In some areas of the country, near-shore sources of sand for beach nourishment are becoming scarce. Recognizing this fact, Congress adopted legislation making it possible for the Minerals Management Service to enter into agreements with the Federal Government as well as with non-Federal sponsors of beach nourishment projects to acquire sand from the Outer Continental Shelf. While Congress gave MMS the discretion to determine if it should charge non-Federal sponsors for this sand, the MMS has determined that, as a matter of policy, it will impose a charge. This will increase costs to State and local governments unnecessarily. Therefore, the American Coastal Coalition supports statutory language which removes from MMS the discretion to charge any fee for OCS sand to a non-Federal sponsor of a federally authorized shore protection project.

LONGER-TERM INITIATIVES

The American Coastal Coalition supports an enhanced national shoreline protection policy which is based on a strong Federal partnership with States and local governments in rebuilding and maintaining public sandy beaches. We believe that the annual Federal investment in this part of our coastal infrastructure can remain in the very modest range of \$100 million to \$150 million well into the next century.

We believe that the current balance of the Federal-State-local partnership should be modified to give a stronger role to States and local governments in the management and implementation of shoreline protection policies, and that State and local interests should assume an increased responsibility for sharing the monetary and non-monetary costs of such management. Equally, we believe that the current Federal process of selecting which beaches are suitable for Federal shore protection assistance and of implementing that assistance must also be enhanced in a manner which establishes clearer and more rational participation criteria, increases the effectiveness of shoreline protection projects, achieves regional goals, and reduces costs.

Toward these ends, we believe that the Federal Government should share with State and local governments the costs of both constructing and maintaining beach nourishment projects. The issues of (a) the proportion of the cost-share borne by the Federal Government, (b) the method used to determine the economic benefits of a proposed shore protection project, and (c) the statutory life of a project should be discussed in light of both the availability of Federal funds and the need to increase the role and responsibilities of the non-Federal sponsors of such projects. Furthermore, we believe that consideration should be given to increasing the reliance placed on State and local governments as well as the private sector in conducting studies and construction of beach nourishment projects.

The American Coastal Coalition believes the discussion of these and other aspects of national shoreline protection policy should take place only in an environment where there is a clear commitment on the part of the Administration to a strong Federal role in the repair and maintenance of the Nation's sandy beaches.

We are hopeful that current discussions involving Congress, the Administration, and the private sector will produce legislative proposals that will address both the rebalancing of the partnership and the project selection and management process. We ask those charged with making government policy to make changes in the current Federal shore protection program carefully and deliberately, relying on an analysis of project-and process-related data to determine which changes are most likely to be effective. This emphasis on prudence should not be misinterpreted as provid-

ing a basis to slow, cease, or prevent action on the study, authorization, funding, or construction of any shore protection project.

Thank you for this opportunity to present our views to this subcommittee today.

PREPARED STATEMENT OF LOUISA STRAYHORN, COUNCIL MEMBER,
VIRGINIA BEACH, VA

Good morning Mr. Chairman and Senators. My name is Louisa Strayhorn, and I am a City Councilwoman for the city of Virginia Beach, representing the Kempsville Borough. I appreciate this opportunity to testify before the committee about the City's past and ongoing work with the U.S. Army Corps of Engineers for our numerous beach and navigation projects.

As you probably know, Virginia Beach is a beautiful resort city located only a few hours drive from the Nation's capitol, and it is the largest City in the Commonwealth. Having served on the City Council for the past 4 years, I know first-hand how the well-being of our beaches is crucial to the City's economy. The City has over 6 miles of commercial beach front which is critical to the livelihood of many Virginia Beach residents and the City's financial health since tourism is our largest employer. Over two million out-of-town visitors arrived in Virginia Beach last year. These visitors spent approximately \$500 million in the City and directly created about 11,000 jobs.

In addition to our visitors, the second biggest employer for Virginia Beach is the U.S. Navy as the Naval Air Station (NAS) Oceana supports the largest naval complex in the free world. After three rounds of Base Realignment and Closure (BRAC), expansion of this megaport continues with an increase of as many as 6,000 sailors and family members in the next year with the F/A 18 transfer from Cecil Field to Oceana. Our City's economic health directly impacts the quality of life enjoyed by the thousands of Naval personnel in Virginia Beach.

Therefore, because of these many varying factors which constitute the City: the size of our population (nearly 400,000), our location on the Atlantic Ocean and Chesapeake Bay, and our dependence on tourism as the largest segment of our economy, the Virginia Beach City Council has a particular interest and directive to protect our beaches and navigable waterways.

Sandy beaches are an integral part of the City coastal infrastructure and provide the first line of defense against storm waves and form the

basis for our continued economic vitality. For the past 25 years, the City, in conjunction with the Corps, has been working to finish the region's highest priority, the Virginia Beach Erosion Control and Hurricane Protection Project. This project protects and enhances six miles of commercial and residential beach front, consisting of over \$1 billion in flood insured development, against a direct hit from a hurricane. The project protects hundreds of millions of dollars of City infrastructure, our tourism industry and more than a thousand of commercial and residential properties along the shore.

Study on this program as a Federal project began in the 1960's, and after long anticipation the project was authorized by Congress for construction in the 1986 Water Resources Development Act. Actual construction began in fiscal year 1996, and depending on appropriations levels, initial construction will be completed in 2001. A vast improvement in protection from storm events, the area protected by the project will be saved from average annual flooding damages estimated at over \$13 million during the project's 50-year life.

The project scope required phasing of the work to match funding levels and comply with procurement policies. The recent policy change to prohibit "continuing contracts," coupled with the reductions in Civil Works appropriations, has slowed progress and complicated the sequencing of the work. However, in May the rules changed again to re-allow continuing contracts, and with continued support for this project by the appropriators it appears that we are back on track for a 2001 completion of construction.

Most projects of this scope and size authorized by this Congress require multi-year and phased contracting for construction to match and track with appropriations levels. Last year's change and subsequent reversal in the "continuing contract" policy severely impacted many projects throughout the country. I believe it may be appropriate for your committee to consider language in this year's WRDA to clarify and resolve the issue.

Another issue facing this committee as you prepare the WRDA is the Administration's proposed revision in cost-sharing for beach replenishment. Once construction of this Beach Erosion Control and Hurricane Protection project is complete, the authorization includes the periodic renourishment of the project beach for a 50-year

period. The very basis for the project's performance estimates is founded in the premise that the beach and seawall or dunes will act together to provide the protection benefits—the beach must be maintained.

Though not specifically addressed in the draft language supplied by the Administration, the application of revised cost-sharing must not affect on-going or existing projects. We have based our participation in this project, and agreed to maintain the constructed project, with the belief that the cost-sharing formulation in the 1986 Water Resources Development Act, and subsequently in our Project Cooperation Agreement, would remain at the authorized level of 65 percent Federal and 35 percent local. The Administration has proposed to change the beach replenishment portion of these projects to 35 percent Federal and 65 percent local. While the merits of revision could be argued, any application of new cost-sharing levels must be limited to new authorities and I urge you to specifically address this issue as you move forward with the WRDA.

If the Administration's new cost-sharing formula were applied to our existing project, the cost to the City of Virginia Beach, over and above the amount specified in our Project Cooperation Agreement, would escalate by more than \$40 million. As a member of City Council when the Council authorized our City Manager to enter into the agreement with the Corps of Engineers, I can tell you first hand that the City Council would feel betrayed if the rules were changed in the middle of the project and our cost share increased as a result by over \$40 million.

Our discussions with Administration officials indicate that their intention was to exclude existing projects and authorities from the proposed revision. We are comforted by this response, but given the seriousness of the issue, we feel it is necessary for you to consider specific

language in this year's WRDA to clarify and resolve the issue that existing projects would not be subject to any new cost-sharing formulas.

As you consider this issue, please keep in mind the merits of these types of projects and the methodology used to judge these merits—strict interpretation of National Economic Development policies. Flood damage reduction to the businesses and residences insured under the National Flood Insurance Program is the primary benefit calculated in the authorization documents. An annualized benefit of over \$13 million in these flood damage reductions justifies the \$10 million annualized costs for the project. Under the current authority and policy, the city of Virginia Beach pays for 35 percent of these costs though the benefits for this national program are entirely Federal.

Granted, the project provides benefits far beyond those calculated in the National Economic Development methodology; chiefly, preservation of our City's tax base and the underpinning of our \$500 million portion of one of the Nation's largest industries—tourism. The 11,000 jobs supported by our tourism industry, and the spin-off economics of those jobs, clearly enhance the merits of the project far beyond flood protection benefits. These benefits and others should be included in project formulation to allow full review of the merits of these projects.

With this in mind, I would ask this committee to consider the broader range of Federal benefits derived from Beach Erosion Control and Hurricane Protection projects in its deliberations on any proposed revisions to the 1986 Water Resources Development Act cost-sharing formulation for beach replenishment. Prior to 1986, beach replenishment was authorized at 50 percent Federal and 50 percent local. Owing to the multitude of benefits derived from such projects, this committee changed the cost-sharing formulation to 65 percent Federal and 35 percent local in 1986. If changes are deemed appropriate at this point, I would urge you to reject the Administration's proposal and consider a cost-share formulation that reverts to no less than the pre-1986 levels in consideration of both flood damage reduction benefits and the vital economic contributions that the Nations' beach tourism industry generate.

Another Water Resource Development issue for our City relates to the Sandbridge Beach Erosion Control and Hurricane Protection Project which was authorized in the 1992 Act. Sandbridge is our southernmost beach community, the beach there has all but vanished through years of erosion and storm activity and damage to public and private infrastructure which occurs increasingly each year.

Three years after authorization, in 1995, the Administration, without notice or warning, arbitrarily terminated new construction starts for this class of projects. Our community relied on this authorization to move ahead with a special tax district to raise funds for the local cost-share and take other steps to protect public and private property from storm damage while we awaited construction of the project. The authority to construct this project was based on the same National Economic Development criteria as the Virginia Beach project—the benefits which out-

weigh the costs were tabulated solely on flood damage reduction to the 1,500 or so insured properties in the Sandbridge community.

Lacking a Federal appropriation and support from the Administration to construct this project, and in response to the devastation of the community from erosion, the city of Virginia Beach has fully funded the initial construction of this project. The City Council appropriated \$8.1 million in fiscal 1998 for a 100 percent locally funded emergency beach restoration project at Sandbridge. I am pleased to report that construction is now underway of this vital project as authorized by your Congress, though the continued authorized renourishment cannot be programmed without Federal support, it is simply beyond our means as a city to fully implement the authorized project.

While we anxiously await support from the Administration to implement this project, an issue developed during the emergency beach restoration phase which may be of interest as you consider the WRDA. The amended Outer Continental Shelf Lands Act authorized the Department of the Interior to assess fees for the extraction of minerals from the continental shelf. The program is managed by the Mineral Management Service, who in late 1997 finalized their policies regarding fee assessment. In short, their policy would exempt federally funded beach replenishment projects from fees for sand minerals mined from the shelf for such projects. However, locally funded beach replenishment projects are not exempt, regardless of Federal authorization.

As a result of this recent policy development, the City of Virginia Beach was assessed a Federal fee for mining the sand used to construct the Federal project at Sandbridge solely because the Federal Government did not contribute to the cost of construction. This was the first such assessment anywhere in the Nation, and we find it objectionable, outrageous, and bad public policy. The purpose for establishing fees for mineral extraction from the continental shelf was to assure that the citizens were compensated for allowing the use of public resources by profit seeking endeavors. Clearly Congress did not intend for the Department of the Interior to assess fees to local governments who would use the mineral for a purely public purpose—flood protection.

In our case, a fee of \$0.18 per cubic yard was assessed, and we were compelled to enter into a lease agreement with MMS before our emergency beach erosion project could go forward. Including this fee in our project finances limited us to contracting for only 1,100,000 cubic yards of sand, paying the Department of Interior \$198,000 in mineral fees to construct the Federal project. In this time when the Administration is proposing to rely more heavily on local sponsors for the funding and execution of Federal flood protection projects, clearly the counter productive nature of assessing these fees to local sponsors should be eliminated. I urge you to consider language for the WRDA that would prohibit the Interior Department from applying its authority under the Outer Continental Shelf Lands Act for any project authorized by the WRDA.

In that the City of Virginia Beach is the only locality in the country to have ever been compelled to pay the mining fee, directive language for reimbursement of the \$198,000 would be greatly appreciated if the committee agrees that the fees should not be assessed to localities.

In conclusion, I would like to highlight the following points and recommendations to the committee:

First, I urge the committee to clarify in its Bill that any revisions to the cost-sharing formulation for beach replenishment only apply to projects not yet authorized or constructed.

Second, I urge the committee to identify in its Bill the contracting methods by which the Army Corps of Engineers will execute authorized projects to facilitate good planning and avoid the pitfalls of midstream policy changes.

I would also urge the committee to review all of the merits and benefits of the Federal beach replenishment program and strive to reach a compromise to the cost-sharing formula reversal proposed by the Administration.

Finally, in our view the Department of the Interior has overstepped its authority by assessing fees to local governments for mining beach replenishment sand in the furtherance of projects authorized by this committee.

Mr. Chairman, I want to thank you again for the opportunity to speak with you today on these issues of extreme importance to the nearly 400,000 citizens of the City of Virginia Beach. The work of this committee has had a very positive affect on our community through nearly 50 years of continuous beach replenishment and now with the construction of the new Beach Erosion Control and Hurricane Protection project at our resort area.

STATEMENT OF JOHN KOEPER, EXECUTIVE DIRECTOR, METROPOLITAN ST. LOUIS
SEWER DISTRICT

Thank you for the opportunity to submit testimony to the Senate Committee on Environment and Public Works in support of a demonstration project proposed by Metropolitan St. Louis Sewer District (District) and the U.S. Army Corps of Engineers (Corps) to study methods of capturing and removing floatables released into our Nation's waterways during combined sewer overflow (CSO) events. This valuable project will provide cities situated on high-volume rivers throughout the Nation with important information on how to best improve the water quality and aesthetics of their rivers by removal of these objects. We ask that authorization for this project be included in the Water Resources Development Act of 1998.

As you know, combined sewers are pipes which carry wastewater (sewage) as well as stormwater runoff during rain events or snow melts in the same structure. The majority of these sewers were built prior to 1940. The flows in the combined sewers are generally discharged directly into rivers, lakes, or oceans without any type of treatment during wet weather events and sometimes during high river stages. Many communities are exploring ways to contain these releases. However, there is little full-scale data available to evaluate techniques suitable for systems that discharge into major rivers with high flow volumes and extreme variance in water levels. This project, conducted at three different outflow locations in the city of St. Louis along the Mississippi River and one of its tributaries, would allow equipment manufacturers and suppliers to install their containment equipment and demonstrate its effectiveness under large flows with heavy debris and unreliable river levels. Such equipment could include simple water baffles, screens, racks, brooms, skimmer vessels, mechanically cleaned screens and swirl concentrators.

The demonstration and operating data derived from this project will provide invaluable water pollution control information to agencies throughout the country and especially to those communities located along major rivers with CSOs. With communities facing the prospect of spending millions of dollars on controlling floatables and solids from CSOs, the information gained from the demonstration project can lead to development of an effective solution at a reasonable cost.

The estimated cost of developing, implementing and analyzing the data collected during the demonstration is approximately \$2.5 million. These funds will be expended during the 3 years it is expected to complete the demonstration. The extended period of time is needed to ensure that enough wet weather (rain) events occur so that significant data can be gathered on the various combined sewer techniques being used. We ask that you include an authorization of \$1.7 million for this project in the Water Resources Development Act of 1998, and have enclosed proposed legislative language for your review. The remaining \$0.8 million of the project costs will be provided by the Metropolitan St. Louis Sewer District.

Thank you again for the opportunity to submit this statement and for your consideration of the funding that the District needs to conduct this study. Our Nation's rivers are a precious environmental resource, and we are committed to finding new ways to improve their health and appearance. We thank you for your attention and ask for your support of this worthy project.

METROPOLITAN ST. LOUIS SEWER DISTRICT COMBINED SEWER OVERFLOW PROJECT

Add as a new section:

SEC. ____. STUDY OF REMOVAL OF FLOATABLES FROM COMBINED SEWER OVERFLOWS IN ST. LOUIS, MISSOURI.

The Secretary, in consultation with the Metropolitan St. Louis Sewer District, shall construct a demonstration project to evaluate various methods for capturing and removing floatables released during combined sewer overflow events and shall provide an analysis of the efficacy of the various removal methods. There is authorized to be appropriated \$1.7 million to carry out this paragraph.

STATEMENT OF HENRY DEAN, CHAIRMAN, INTERSTATE COUNCIL ON WATER POLICY

I. BACKGROUND

The Interstate Council on Water Policy (ICWP) represents State, interstate, intrastate, and regional water agencies; academic institutions; professional and business firms; and individuals committed to the conservation, use, development and wise management of water. Established in 1959, ICWP is the national voice for water-related interests both on quantity and quality issues.

ICWP's membership includes State and local agencies who are project sponsors with the Corps of Engineers.

ICWP urges Congress to renew the Water Resources Development Act (WRDA) this year, in keeping with the 2-year schedule followed subsequent to WRDA 86. The Council feels that this is a critical piece of legislation to its members and to the Nation's water resources as a whole.

II. COST SHARING

ICWP continues to support the philosophy of cost-sharing as expressed in the WRDA 1986 as a means of achieving a full and equitable partnership in the planning and construction of water resources development projects.

ICWP urges that the current cost-sharing proportions for federally partnered projects remain at their current levels. Since the enactment of WRDA 1986, flood control project sponsors and others have already taken on substantially more of the costs of such projects due to the last formula change from the initial 75/25 ratio enacted under WRDA 86 to the current 65/35 ratio. The Council's policy notes that some projects should be funded at higher Federal proportions (up to 100 percent), such as environmental restoration which is still at a 75/25 cost share. Projects which are primarily of a Federal interest should be funded at 100 percent. ICWP feels that if the formula is modified again to shift more of the burden to the project sponsor, many critical projects in this country will not be undertaken.

The Council supports the tacit recognition of in-kind services as part of the non-Federal cost share. This should also extend into the study area, including those mentioned under the new Flood Hazard Mitigation and Riverine Ecosystem Restoration program outlined under Section 4.

ICWP is pleased to see that the Administration has not proposed any further changes in the current cost sharing formula for flood control projects, but urges Congress not to reduce the Federal cost-share for shore protection projects. Although the Administration has indicated that they are proposing to keep the current Federal cost-share for construction of new shore protection projects, they are proposing to reduce the Federal cost-share for long-term periodic nourishment of beaches to make more funds available for construction of new shore protection projects. ICWP feels that Congress and the Federal Government should be committed to both of these efforts.

ICWP believes that cost-sharing policies should be consistent among alternative means of achieving the same purpose. In this regard, ICWP endorses uniformity in cost sharing for both structural and nonstructural alternatives to a problem. It is ICWP's position that cost-sharing policies should be consistent among Federal agencies for like project purposes.

III. MASTER SCHEDULE OF NEW PROJECTS

ICWP urges Congress to direct the Administration to work with Congress to develop a master schedule of new projects to bring on line in the future.

IV. STORAGE COST RECOVERY AND REPAYMENT ON REALLOCATION

Federal reservoirs are a national asset, not a profit opportunity for the Federal Government. Federal policy should be based on obtaining repayment of those project costs where repayment is required by law. Beyond this point, reservoirs should be managed to meet the Nation's water priorities, rather than to maximize Federal revenues.

When storage is reallocated to water supply storage at a Federal reservoir, non-Federal interests should pay the proportionate share of the project's original cost plus interest as provided by the Water Supply Act of 1958, as amended. In cases where water storage space is reallocated from a vendible purpose, the non-Federal participant should also pay the cost of any project facilities no longer usable as a result of the allocation, less the portion of these costs already paid for by revenues received where the storage was used by a Federal licensee or contract holder possessing a valid water right under applicable State law. Payment shall include the value of any compensation or credit which must be provided by the Federal Government for such rights. When a reallocation for water supply requires modification or rehabilitation of the project, the beneficiary should pay this cost. Water supply users should also pay a proportionate share of project operation and maintenance costs after reallocation. The total of these payments should compensate the Federal Government for the change in project purposes.

In considering reallocation of storage space at Federal reservoirs, Federal agencies should strictly respect State water law and State water management responsibilities

and to consult all affected States, as well as following applicable State laws on water rights and water quality.

V. PREPAYMENT OF STORAGE COST

Many contracts for repayment of water supply costs at Federal reservoirs constructed and managed by the Corps of Engineers provide for comparatively low interest rates for outstanding payments, thereby creating a negative cash-flow for the Federal Government when considering higher Federal borrowing rates. Additionally, accumulating interest on future use storage may increase the costs of that portion of the storage beyond the financial capabilities of contracting entities when use of such storage is needed, requiring those entities to find alternative supplies and resulting in no cost recovery by the Federal Government. Furthermore, ongoing operation and maintenance costs attributable to future use storage in such Federal reservoirs would continue to be borne by the Federal Government.

The Federal Government should require the Corps of Engineers to accept prepayment of storage costs in amounts that consider not only the present value of the outstanding balance of such costs, but also the risk that future use storage and operation and maintenance costs will not be recovered.

VI. ONE-YEAR STUDY OF MITIGATION BANKING

ICWP urges that authorization be included in WRDA 1998 for the U.S. Army Corps of Engineers to carry out a 1-year study of mitigation banking in States with experience in authorizing and using mitigation banks. The goal of the study should be to determine the prospects and problems associated with mitigation banking. The study should also focus on whether any Federal legislation is needed and what provisions need to be included as part of such legislation. ICWP wants to make it clear that although the association considers this study essential, authorization of the study should not be construed to preclude the consideration of other Federal legislation on mitigation banking.

It is ICWP's position that use of a mitigation bank is appropriate as compensatory mitigation for wetland impacts when the sequencing, avoidance, and minimization requirements have been met and the bank offsets the wetlands functions lost at the impact project site. However, mitigation banking should be just one of the tools available to provide compensatory mitigation, and should not become the sole mitigation option.

VII. SMALL FLOOD CONTROL PROJECTS

ICWP supports the Administration's proposal to allow nonstructural projects to be covered under Section 205 of the Flood Control Act of 1948 as amended (33 U.S.C. 701s).

VIII. COOPERATIVE AGREEMENTS FOR NATURAL RESOURCES, ENVIRONMENTAL PROTECTION, CONSERVATION AND RECREATION MEASURES

ICWP supports the authorization for the Department of the Army to enter into cooperative agreements with non-Federal public bodies and non-profit entities to facilitate collaborative efforts involving environmental protection and restoration, natural resources, conservation, and recreation in connection with the development, operation and management of water resources projects under the jurisdiction of the Department of the Army. The Council supports Sections 9, 10 and 11 of the Administration's 1998 WRDA proposal.

IX. STATE CONTRIBUTIONS IN ENVIRONMENTAL RESTORATION PROJECTS

ICWP supports Section 12 of the Administration's proposal to allow State contributions to be used in environmental restoration projects as well as flood control projects.

X. ESTABLISHMENT OF WATER RESOURCES FOUNDATION

ICWP questions the need to create the Water Resources Foundation proposed by the Administration under Section 16. The foundation seems to be proposed in a top-down fashion and seems to lack the grass roots orientation which makes endeavors such as those listed under subsection b successful. The Council feels that these tasks could be coordinated with existing organizations and delegated appropriately to local units.

XI. CLEAN WATER ACTION PLAN—CORPS OF ENGINEERS ISSUES

ICWP supports the Administration's efforts to implement the Clean Water Action Plan and urges the Administration to continue to work with the States, local governments and interstate river basin organizations to implement the goals of this plan. We feel that these communities play a vital role in protecting the Nation's valuable water resources.

Measurement of Wetlands Goal

ICWP recognizes that wetlands are a precious natural resource. ICWP is committed to stemming the present rate of loss the Nation is experiencing on a yearly basis. However, one issue the Council would like to raise for consideration is the measurement of achievement of the wetlands goal, which is a net increase of 100,000 acres of wetlands per year. ICWP is concerned that because "unavoidable" losses are to be offset by mitigation gains, basing the goal on acreage alone obscures differences in type, function and quality. Wetland creation does not always replace lost functions and values.

It is unclear how enhancement acreage will be counted. Preservation as a form of mitigation may protect large connected systems but neglect small isolated wetlands, possibly with detrimental effects to particular species, and in any event does not add acreage to the total. Separate data collection for acres preserved would be useful. Perhaps these factors can be taken into account in establishing the inter-agency tracking system proposed in the plan.

Challenge 21-Flood Hazard Mitigation and Riverine Restoration Program

ICWP also supports the Administration's proposed *Challenge 21*, as one of the tools for flood damage reduction and riverine ecosystem restoration. ICWP understands and supports the goals to expand the use of non-structural flood damage reduction measures and to provide for more effective coordination of Federal programs on a watershed basis. The Council also supports the proposed 65 Federal/35 local cost share proposed for the program. ICWP understands that the non-Federal interests shall be responsible for all costs associated with operating, maintaining, replacing, repairing, and rehabilitating all projects carried under this authority.

ICWP supports the project justifications as outlined in the Administration's proposal, which state that a project authorized under this program must be determined to significantly reduce potential flood damage, improve the quality of the environment and is justified considering all costs and beneficial outputs of the project. The Council also urges the Corps to involve its members in the development and review of the criteria for selecting and rating the projects to be carried out as part of the flood damage reduction and riverine restoration program.

XII. CRITICAL STREAM GAGING ISSUES

ICWP urges Congress to support and direct the U. S. Army Corps of Engineers to maintain streamgages nationwide, as part of their ongoing responsibility for management along the waters of the Nation. The Corps should be urged to partner or cost share with non-Federal agencies on those gages having shared uses among Federal and non-Federal agencies. These gages play a critical role in maintaining the Nation's water resources and need to have Federal support.

The subcommittee needs to be aware that the Corps of Engineers has helped to fund these gaging stations, but recent budgetary constraints within the Corps are inducing certain District offices to withdraw their support of gaging stations traditionally used by the Corps and States in the management of water resources. Numerous members of ICWP are facing circumstances of losing gages which they have historically relied upon for certain needs because water control operations within Corps Districts are cutting out support.

The Interstate Council on Water Policy appreciates the opportunity to comment on WRDA 98.

STATEMENT OF SACRAMENTO AREA FLOOD CONTROL AGENCY

INTRODUCTION

Mr. Chairman and members of the committee, I am Muriel P. Johnson, Chair of the Sacramento Area Flood Control Agency (SAFCA). We appreciate the opportunity to appear before your committee during its hearings on the Water Resources Development Act of 1998. My statement will cover four issues: (1) what is at stake in Sacramento for the local community, the State of California, and the Federal Government in the event of an uncontrolled flood along the American River; (2) what

have SAFCA and its member agencies done to reduce the risk of flooding in Sacramento; (3) why is SAFCA advocating modifications to Folsom Dam and improvements to American River and South Sacramento Streams Group levees as the next steps in the ongoing process of upgrading Sacramento's existing flood control system; and (4) why is this matter ripe for resolution. My major contentions are as follows:

No river city in America faces a graver threat of flooding than Sacramento where 400,000 residents, the State Capitol and 160,000 other structures, with an estimated value of \$37 billion, occupy a vast floodplain at the confluence of the Sacramento and American Rivers. Economic losses from an uncontrolled flood are estimated to range from \$7 billion to \$16 billion depending on the magnitude of the flood event. At the lower level, the damages would be comparable to those suffered in the 1989 Loma Prieta earthquake. Assuming a comparable public/private sector response to such a disaster, costs for relief and reconstruction would total almost \$5 billion of which the Federal Government would contribute approximately \$2.6 billion, State and local government \$1 billion, private insurance \$1 billion, and private charities \$125 million.

In response to the record floods of 1986 and 1997 and Congress' decision not to authorize a comprehensive flood risk reduction program for Sacramento involving construction of a flood control dam at Auburn, SAFCA has determinedly pursued an incremental approach to upgrading the existing flood control system. This approach has focused on repairing and improving the levees which provide residents of the floodplain with the first line of defense against flood damages and increasing the space available for flood control in Folsom Reservoir. In pursuit of these improvements, SAFCA has spent almost \$100 million for planning, administration and construction of flood control improvements since 1990.

The logical next steps in this process are to implement structural modifications to Folsom Dam which would improve flood control operations and make more effective use of the space available for flood control in the reservoir, raise and strengthen the American River levees to allow dam operators to step up the releases from Folsom Dam in the event of very large flood events, and to improve the South Sacramento Streams Group levees which guard the backdoor to the American River floodplain. These improvements are described in the Chief's Report dated June 27, 1996 for the American River Watershed Project, California and in the Chiefs Report for the South Sacramento Streams Group Project which will be available this June.

The matter of increased protection for Sacramento is ripe for decision by Congress. A comprehensive analysis of available flood control options for Sacramento was presented in the Army Corps of Engineers Supplemental Information Report, American River Watershed, which was prepared for your consideration in 1996. SAFCA heartily agrees with the principal finding of the National Research Council's Committee on Flood Control Alternatives in the American River basin which was formed for the express purpose of reviewing the Corps of Engineers' (Corps) analysis: "It is time to select and implement flood risk reduction strategies for the American River basin."

AN EMERGING CONSENSUS ON SAFCA'S PREFERRED NEXT STEP HAS DEVELOPED

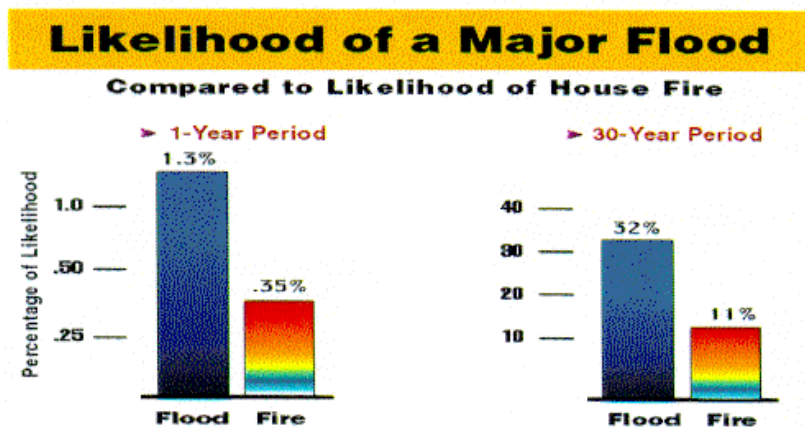
The above described locally preferred American River flood control project was selected by SAFCA by a 10 to 2 vote. The Sacramento City Council unanimously endorsed SAFCA's selection. In March, the National Wildlife Federation, in testimony before the House Committee on Transportation and Infrastructure, urged authorization of this project. On April 10, the Office of Management and Budget, in a letter to Sacramento Congressman Robert Matsui, announced the Administration's support for authorization of the project. SAFCA believes these actions of support clearly demonstrate a consensus that Folsom Dam and levee modifications is the right next step.

WHAT'S AT STAKE

Like most of America's river cities (Plate 1), Sacramento's 19th century economy revolved around river transport. As a result, the city's early settlers preferred to live close to the water's edge—opting to battle the large floods that periodically transformed California's Central Valley into an inland sea rather than retreat to high ground. As a result, over the past 150 years, the floodplain at the confluence of the Sacramento and American Rivers has been widely developed. An extensive system of flood works built almost entirely by the Corps of Engineers during this century has prevented serious flooding during the city's modern era (Plate 2). However, the record flood of 1986 has reminded area residents of the perils of life in a floodplain

and caused flood control engineers to reassess the likelihood of uncontrolled flooding along the American River.

It now appears that without substantial improvement of the existing flood control system, there is approximately one chance in 80 that Sacramento will be flooded from the American River in any year. This annual risk translates into a cumulative risk, over the next thirty years, of one chance in three. A home in the floodplain is thus more likely to be damaged by a flood than a fire, and much more likely to be damaged by a flood than an earthquake.



The flood will be the direct result of either a levee failure or levee overtopping along the Lower American River. When the breach occurs, water levels in the American River will be eight to 15 feet higher than the ground outside the levees. Water will pour through the gap and spill into the heavily urbanized areas along the Sacramento and American Rivers, eventually inundating as much as 55,000 acres.

Because the American River watershed is steep, runoff increases very rapidly after a major storm. State and Federal flood control officials will, at best, be able to give Sacramento 8 to 12 hours of warning prior to the breach. Approximately 400,000 people live in the area which could be flooded. There are approximately 160,000 residential structures, 5,000 business and 1,200 government facilities, including the State Capitol, in the potential floodplain. Seven of the region's nine major hospitals will be flooded as will seven of the area's nine police stations. 130 schools will be damaged or destroyed. Flood depths will range from 5 to 20 feet, depending on ground elevations in the flooded area and the duration of high river stages. A list of the affected facilities is attached for the committee's information as Appendix A.

Damages, without including costs for local and statewide business disruption are estimated to range from a minimum of \$7 billion for a 100-year flood to \$16 billion for a 400-year flood. At the lower level, the damages would be comparable to those suffered in the 1989 Loma Prieta earthquake which caused 63 deaths, 3,757 injuries, and more than \$8 billion in direct property damage. Assuming a comparable public/private sector response to such a disaster, costs for relief and reconstruction would total approximately \$4.75 billion of which the Federal Government would contribute approximately \$2.6 billion (Table 1), State Government \$1 billion, private insurance \$1 billion, and private charities \$ 125 million.

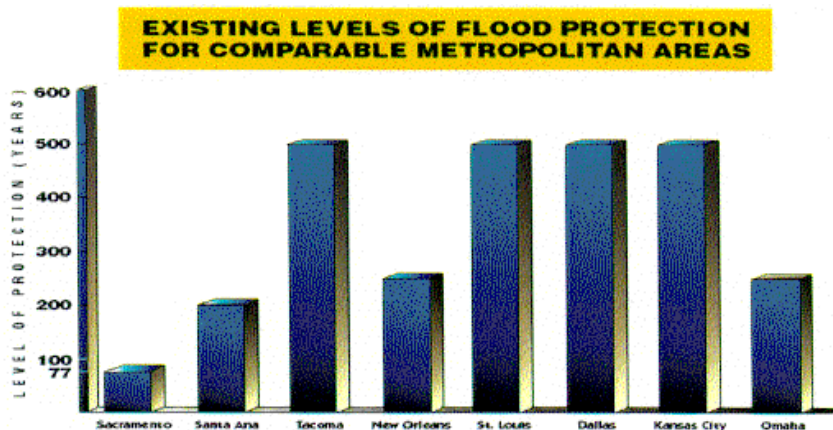
Table 1.—Allocation of Federal Costs for Loma Prieta Earthquake

FEMA—Disaster Relief	\$0.85 billion
Federal Highway Adm.—Emergency Bridge & Highway Repair	\$1.0 billion
Small Business Adm.—Disaster Loan Fund	\$0.5 billion
Department of Commerce *	Unknown
President's Discretionary Funds	\$0.25 billion

* To supplement existing SBA and FEMA business loan programs.

SAFCA'S LONG-TERM GOAL

Since its inception, SAFCA's long-term flood control planning goal for the American River basin has been to provide Sacramento with a high level of flood protection. This goal, variously defined over the years as protection from a 200-year or larger flood, or protection from the "standard project flood," inspired the design and construction of Folsom Dam and Reservoir in the 1950's, gave impetus to the multi-purpose Auburn Dam project in the 1960's and 70's, when large storms demonstrated Folsom's inadequacies (Plate 4), and guided the governmental response to the record flood of 1986 along the American River. According to the June 1994 report by the Interagency Floodplain Management Review Committee, "Blueprint for Change, Sharing the Challenge—Floodplain Management in the 21st Century" (Galloway Report), the standard project flood (or "SPF") . . . represents the flow that can be expected from the most severe combination of meteorologic and hydrologic conditions reasonably characteristic of the geographic region involved . . . The SPF discharge is generally used to determine the level of protection for urban population centers where there is great threat of loss of life and damage to critical infrastructure." SAFCA believes its long-term flood protection goal of minimum 200-year protection is also consistent with the level of flood protection provided to other cities of comparable size throughout the United States.



WHAT HAS BEEN ACCOMPLISHED IN REDUCING THE RISK OF FLOODING IN SACRAMENTO

Based on the most current hydrology for the American River basin, it appears that SAFCA's long-term planning goal of not less than 200-year flood protection can only be achieved by creating a new flood control storage facility along the American River upstream of Folsom Dam. SAFCA and the surrounding communities sought congressional authorization of such a facility at Auburn in 1992 and again in 1996. In both instances, Congress rejected the proposal for a dam. In light of those actions, SAFCA has opted to pursue a series of incremental improvements to the existing flood control system with the aim of achieving as much flood protection as possible without adding new storage capacity to this system. This approach (Plate 3) has produced the following results:

- SAFCA has cooperated with the State Reclamation Board and the Corps of Engineers in carrying out \$35 million of improvements to strengthen approximately 33 miles of the east levee of the Sacramento River which protects 40,000 residents of the Natomas basin and much of the urbanized portion of the city of Sacramento south of the American River. This work was conducted under the existing authorization for the Sacramento River Flood Control Project.
- SAFCA, at its own expense, has completed \$60 million worth of levee and related improvements to protect Natomas and portions of North Sacramento (collectively referred to as the North Area) from flooding along the Natomas East Main Drainage Canal and lower Dry and Arcade Creeks. This work was authorized as part of the 1993 Defense Appropriations Act.
- SAFCA has entered into an agreement with the U.S. Bureau of Reclamation (Reclamation) to increase the space available for flood control in Folsom Reservoir, provided that SAFCA fairly compensates the Federal Government for any resulting

loss of hydropower and replaces any lost water that may be needed by Reclamation to meet contractual obligations or environmental requirements. As part of the Common Elements project authorized in the 1996 Water Resources Development Act, Congress directed Reclamation to continue such operation until a comprehensive flood control plan is initiated and authorized Federal cost sharing through the year 2000.

- SAFCA has facilitated a consensus among flood control, environmental, recreation and neighborhood interests to proceed under the authority of the Sacramento River Bank Protection Project with a series of uniquely designed erosion control measures at four sites covering almost two miles of the south bank of the Lower American River.

- SAFCA is cooperating with the State and the Corps on a project involving \$63 million in improvements to strengthen the levees along both sides of the American River and to raise and strengthen portions of the east levee of the Sacramento River. This work was also authorized as part of the Common Elements project.

These incremental improvements provided Sacramento with an important margin of safety in warding off the flood of 1997. The full power of this storm was centered in the Feather River watershed north of Sacramento, where levee failures resulted in devastating flooding. Even with this fortunate act of nature, this storm nearly equaled the record magnitude of the 1986 flood on the American River. Unlike 1986, however, no significant seepage occurred along the east levee of the Sacramento River; SAFCA's variable storage space operation at Folsom helped Reclamation safely contain reservoir inflows without raising outflows above the safe carrying capacity of the downstream levee system; bank protection work, completed less than a month before the storm hit, helped prevent major bank erosion and potential jeopardy to the south bank levee; and relatively modest peak flows in the Lower American River tributaries, combined with the improvements constructed as part of the North Area Local Project, kept stages in the channels around Natomas and North Sacramento well within design standards.

Nevertheless, the 1997 flood has underscored the urgency of seeking additional improvements to the existing flood control system. First, had the full brunt of this storm centered on the American River, the resulting inflow would have filled Folsom Reservoir and required releases which would almost certainly caused a levee failure. Second, this flood, occurring just 11 years after the flood of 1986, has caused the Corps to re-evaluate the hydrology of the American River basin. It now appears that even with the above-described improvements in place, a huge portion of the city of Sacramento, outside Natomas and the portions of North Sacramento protected by the North Area Local Project, has only about an 80-year level of flood protection (Plate 5). In addition to facing an unacceptably high flood risk, these areas are also burdened with the prospect of increased flood insurance rates and development restrictions pending further improvement of the flood control system. Third, the 1997 flood generated very high replacement costs for water and power lost as a result of the operation of Folsom in connection with the flood, thus highlighting the difficulty of balancing Folsom's competing uses.

WHAT ARE THE NEXT STEPS FOR FLOOD CONTROL IN SACRAMENTO

SAFCA believes that the next steps in the process of improving the existing flood control system should be structural modifications to Folsom Dam that would increase its operational flexibility and improvements to the levee system that would allow higher flows to be safely conveyed through the urbanized floodplain without increasing the risk of flooding downstream of the American River. These improvements are well described in the documents accompanying the Report of the Chief of Engineers dated June 27, 1996 (collectively referred to herein as the Chief's Report) which was prepared for your consideration in connection with the 1996 Water Resources Development Act and which was formally transmitted to you by the Assistant Secretary of the Army for Civil Works in October 1997. The Chief's Report indicates that while the dam and levee modifications could be treated as technically separable elements, they are complementary and both are necessary to achieve the maximum reduction in expected flood losses without construction of a dam. SAFCA also believes it is essential to authorize both elements now so as to ensure that the risk of flooding in Sacramento is reduced to the maximum extent possible. The estimated construction cost of these improvements is \$450 million, with an estimated Federal cost of \$293 million and an estimated non-Federal cost of \$157 million. When combined, these improvements have a benefit to cost ratio of 1.6 to 1. These improvements assume that SAFCA's reservoir operation agreement with Reclamation will be indefinitely extended as directed by Congress in 1996. It should be clear that SAFCA is not seeking an extension of Federal cost sharing for replacement

water and power in connection with this agreement at this time. However, SAFCA recommends that you direct the Secretary of the Interior to work with SAFCA to develop a long-term plan to mitigate water and power impacts. Such a plan can be presented for your consideration in the year 2000. Finally, as a part of the authorization for the dam and levee improvements, SAFCA is seeking a credit/reimbursement provision patterned on language Congress adopted in 1992 which allowed SAFCA to move quickly forward with construction of the federally authorized levee improvements around Natomas and North Sacramento.

In addition to these American River improvements, SAFCA is also seeking authorization of the South Sacramento Streams Group Project to prevent flooding portions of Sacramento from the south, where a network of streams and channels have inadequate capacity for conveying foothill runoff through the a portion of the urbanized area. Here, approximately 100,000 residents are at risk of flooding from both the streams and the American River. The Corps has identified a very cost effective \$64.8 million project which provides 500-year flood protection and has a cost benefit ratio of almost 4 to 1. The project includes constructing about 26 miles of floodwalls and levee improvements.

Finally, because the American River improvements described above do not achieve SAFCA's long-term goal of 200-year flood protection, efforts to identify additional, feasible flood damage reduction measures should continue. Consequently, while the Corps' ongoing American River Watershed Investigation should be focused on designing and constructing the proposed dam and levee modifications, the Corps should also be directed to continue to identify and evaluate the additional steps that might be taken in the future to realize SAFCA's long-term goal of providing Sacramento with a 200-year or greater level of flood protection.

FOLSOM DAM MODIFICATIONS

The proposed improvements to Folsom Dam consist of modifications to the dam's outlet works and surcharge storage operation. Improved outlet works will permit dam operators to respond more quickly to incoming floods by releasing more water earlier in the flood in order to preserve as much empty space as possible for safe containment of inflows to the reservoir at the peak of the flood. An improved surcharge operation will allow more water to be stored near the top of the dam, thus increasing the space available for containing peak inflows. As described in the Chief's Report, the most important pieces of this work are lowering the crest of Folsom Dam's main spillway by 15 feet and enlarging all of the dam's existing spillway gates and low level river outlets. This work is estimated to cost \$137 million, with an estimated Federal cost of \$89 million and an estimated non-Federal cost of \$48 million.

Make no mistake about it, this is major surgery to an aging facility. Construction would occur over an 8-year period commencing in 2001. Dam operations would be constrained in the early years of the construction process and there would be persistent conflicts with traffic on the dam road throughout the process. SAFCA is deeply concerned about these construction related impacts and we think every effort should be made to avoid or minimize them. Accordingly, we believe Congress should give the Secretary of the Army as much latitude as possible in determining the final design of the needed improvements. In particular, we think the Secretary should be directed to take a hard look at the analysis recently completed by SAFCA's engineering consultants evaluating the feasibility of including new river outlets in the design of the dam modifications. This analysis concludes that with new outlets in the mix, the needed improvements could be constructed without compromising dam operations and with significantly less traffic impacts. We also think the Secretary of the Army should be directed to work closely with the Secretary of the Interior to evaluate the benefits from a dam safety point of view of constructing a new bridge across the American River just downstream of Folsom Dam. Such a facility would permit closure of the existing dam road, allowing dam operators to secure access to the dam and clearing the way for unimpeded work on the main spillway in the event it is determined that spillway modifications are needed to meet Federal dam safety standards.

AMERICAN RIVER AND DOWNSTREAM LEVEE MODIFICATIONS

The second major element of SAFCA's American River program is improvement of the levee system below Folsom Dam. The American River levees, Sacramento's last line of defense against a catastrophic flood, are currently not capable of safely carrying flows that will result from a 100-year flood. Accordingly, SAFCA believes that it is essential to raise and strengthen these levees to allow Folsom Dam operators to step up their releases from the dam based on inflow and storage conditions

in the reservoir. The maximum step under the improvements described in the Chief's Report would be 180,000 cfs and it would be reached only in connection with floods significantly larger than the record 1986 flood. In order to accommodate this flow in the American River channel and avoid adverse impacts on interior drainage systems in the American River floodplain and on the levee system downstream of the mouth of the American River, the Chief's Report identifies the following features:

Raise and Strengthen Existing American River Levees. About 13.5 miles of existing Federal and non-Federal levees along the north and south banks of the American River would be raised. The raises would vary from up to 2 feet for the Federal levees to up to 4 feet for the non-Federal levees upstream of the Mayhew Drain. In addition, erosion protection would be placed along 5.8 miles of existing levees in order to resist the higher flow velocities associated with this plan.

Modify Bridges. In order to accommodate flows up to 180,000 cfs in the American River channel, the Howe Avenue and Guy West Bridges would be raised between 3 and 5 feet. In addition, minor modifications would be added to the right trestle of the Union Pacific Railroad where the track crosses the north levee below the levee crown.

Modify Drainage Facilities. Local pumps and related facilities would be upgraded and new pumping stations would be constructed at existing gravity outfalls to maintain the current capacity of these facilities to discharge interior drainage into the American River channel.

Widen the Sacramento Weir and Bypass. The Sacramento Weir and Bypass would be widened by moving the existing north levee 1,000 feet to the north to avoid any increase in existing flows and stages in the Sacramento River channel upstream and downstream of the American River.

Raise and Strengthen Levees in the Yolo Bypass. To avoid any reduction in the level of flood protection currently provided by the Yolo Bypass levees, about 25.6 miles of these levees would be raised and 38.2 miles would be strengthened. Two miles of new levees on several tributaries to the bypass would be constructed and a bridge over the Tule Canal would be modified.

Environmental Restoration and Recreation Improvements. Project construction in the lower reach of the American River would include recreation improvements and seasonal wetland and riparian habitat restoration in the American River Parkway.

As set forth in the Chief's Report, the estimated cost of these improvements is \$313 million, with a Federal cost of \$204 million and a non-Federal cost of \$109 million.

SOUTH SACRAMENTO STREAMS GROUP IMPROVEMENTS

In addition to improved flood protection along the main stem of the American River, SAFCA is also seeking authorization of the South Sacramento County Streams Group Project to close the back door of the American River floodplain by preventing flooding of portions of Sacramento from the south. Here, Morrison Creek, Unionhouse Creek, Elder Creek and Florin Creek convey foothill runoff through urbanized areas into Beach Lake and the Delta. The specific problem with the creeks is inadequate channel capacity. This is the combined result of new hydrology which has increased flows above original design and increased tail water elevations in the Delta. The Corps of Engineers has recently completed a Feasibility Study of this area and found it to currently have only about a 40-year level of protection.

This highly urbanized area, most of which is also at risk of American River flooding, is composed of about 40,000 residences, commercial business and industrial facilities. The estimated value of these structures is over \$5 billion. Approximately 100,000 people live and work in this area. The Corps has identified a very cost effective \$64.8 million project providing 500-year level of protection with a benefit to cost ratio of 3.9 to 1. The average annual damages to structures, should the project not be built, is over \$23.5 million. The Selected Project comprises constructing 12.6 miles of new floodwalls, 13.6 miles of new levees and levee improvements, and retrofitting of 18 existing bridges along four creeks. The Selected Plan also includes recreational amenities and environmental restoration activities.

The Corps has identified an NED Plan providing 500-year level of protection to 75 percent of the area with the remainder being provided 200-year level of protection. The areas receiving 500-year level of protection and 200-year level of protection are adjacent to each other, separated by only a State Highway. SAFCA, as the non-Federal sponsor, has selected a plan providing a consistent 500-year level of protection. We do not believe that the level of protection should vary from one side of a highway to the other. During public outreach activities in the area, the residents of the total area clearly expressed their support for a consistent level of protection.

The NED Plan is estimated to cost \$59.9 million while the Selected Plan is estimated to cost \$64.8 million, a difference of \$4.9 million. The increased cost has two components as follows:

- Construction of the levees and floodwalls in the NED Plan lower protection area about 1 foot higher, at an estimated cost of \$2.9 million.
- Creation and administration of a \$2.0 million fund by SAFCA to mitigate any adverse hydraulic impacts to downstream residents potentially caused by upstream plan features, at an estimated cost of \$2.0 million.

SAFCA is requesting that full cost sharing, in conformance with the 1986 Water Resources Development Act, apply to all elements of the Selected Plan.

A DECISION ON INCREASED FLOOD CONTROL FOR SACRAMENTO SHOULD NOT BE DELAYED

The proposed dam and levee modifications would not fulfill SAFCA's long-term flood control objective of providing a 200-year level of flood protection. Nevertheless, these improvements would provide a significant measure of flood risk reduction and they represent the logical next steps in the ongoing process of upgrading the existing flood control system which began in the aftermath of the 1986 flood. These steps are not free of technical and engineering uncertainties, but SAFCA strongly concurs with the principal finding of the National Research Council, whose experts reviewed and issued a report on the options for flood risk reduction in the American River basin in 1995:

"The key issue in the planning process, and in this report, is how to reduce flood risk in the Lower American River basin given a decisionmaking arena that includes significant scientific uncertainty and organized opposition to some of the possible risk reduction alternatives . . . [b]ut decisionmakers, agency officials, and interest groups reading this report should not use calls for additional research as an excuse for not taking action . . . It is time to select and implement flood risk reduction strategies for the American River basin."

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF MANAGEMENT AND BUDGET,
Washington, DC, April 10, 1998.

Hon. ROBERT T. MATSUI,
U.S. House of Representatives,
Washington, DC.

DEAR REPRESENTATIVE MATSUI: Thank you for your letter of March 13, 1998, concerning Sacramento flood control initiatives. Your letter asks that any Water Resources Development legislation proposed by the Administration include provisions to substantially reduce the flood threat facing the Sacramento region. You indicate that modification of Folsom Dam and improvements to American River downstream levees, which are the measures recommended by the local flood control agency, represent the most realistic steps available at this time.

The Administration is committed to assisting the city of Sacramento identify and implement a long-term solution to reducing its flood risk, consistent with protecting the region's natural resources. As a first step, the Administration proposed authorizing and funding of the levee improvements and other common elements included in the Army Corps of Engineers' plans that were under consideration in 1996. As a long-term solution, the Administration supports the Folsom Dam modifications and additional levee improvements recommended by the Sacramento Area Flood Control Agency and supported in your letter.

Given Federal funding constraints, the Administration believes we need to continue with a phased approach to implementing this long-term solution. We are now in construction of the first phase "common elements" described above. As a next step, we support authorizing both the Folsom Dam modifications and the levee improvements in the 1998 Water Resources Development legislation, with language that permits funding of the work in two more stages. The authorization would envision that funding for the second phase, consisting of dam modifications and design work for the levee improvements, could begin immediately, and it would specify that funding for the third phase, covering the actual construction of the levee improvements, would follow completion of the second phase, at least 5 years after enactment.

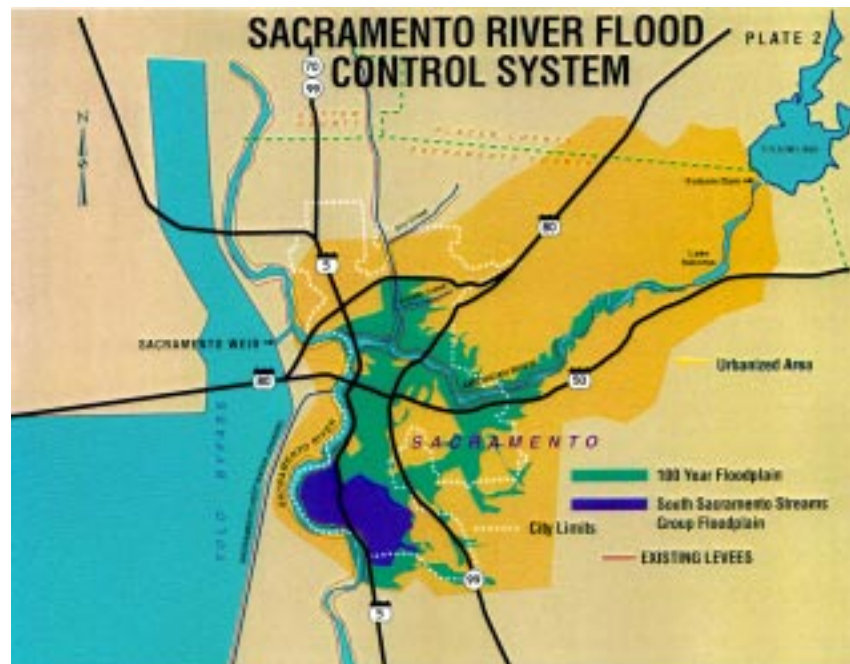
As you note in your letter, completing the Folsom Dam modifications in this second phase would significantly reduce flood risks for Sacramento and would raise the level of flood protection above the 100-year level. Levee improvements then will go even further to increase flood protection.

Thank you for letting me know of your interest in this issue. I look forward to working with you to help ensure adequate flood protection for the Sacramento area.

Sincerely,

T.J. GLAUTHIER,
*Associate Director,
Natural Resources, Energy and Science.*



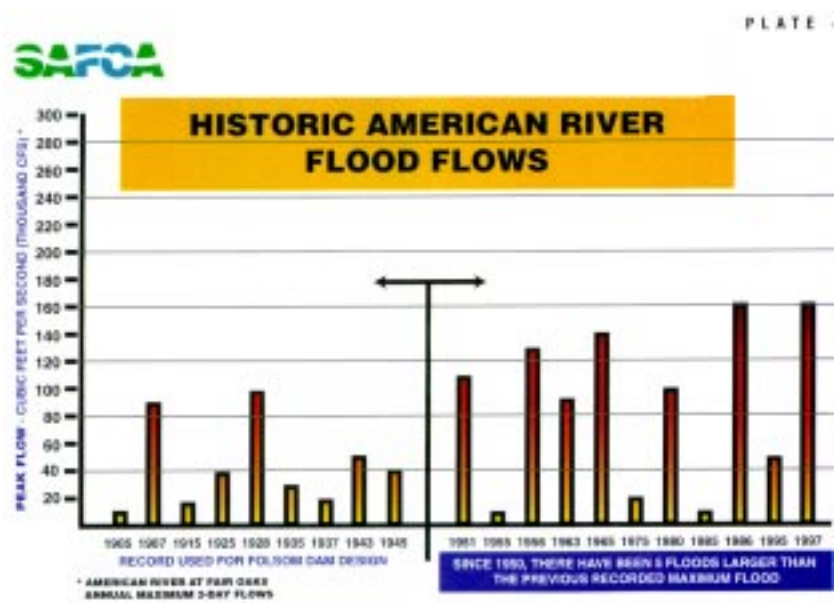


The map illustrates various flood protection initiatives in the Sacramento area. Key features include:

- Existing Levees:** Represented by thin red lines.
- American River Parkway:** Shown as a green shaded area along the river.
- Sacramento City Limits:** Indicated by an orange shaded region.
- SACRAMENTO URBAN LEVEE RECONSTRUCTION:** Highlighted with thick red lines.
- NORTH AREA LOCAL PROJECT LEVEE:** Highlighted with thick green lines.
- FOLSOM DAM & RESERVOIR VARIABLE FLOOD SPACE OPERATION:** Highlighted with yellow shading near Folsom Lake.
- BANK PROTECTION:** Represented by white areas along the riverbanks.
- COMMON ELEMENTS PROJECT:** Represented by brown lines.

The map also shows major highways (70, 99, 80, 50), local streets (Barker Rd., Rego Rd., Sutter Blvd., etc.), and geographical features like Folsom Lake and the American River. A north arrow is located in the bottom right corner.





1986 SACRAMENTO FLOODING

PLATE 6



What's at Stake

According to a recent report prepared by the California Department of Water Resources, the following Sacramento area facilities are at risk of being damaged or destroyed in a major flood:

Airports

Sacramento Executive
6151 Freeport Blvd.
Sacramento, 95822

1616 14th St.
1624 14th St.
1620 14th St.
1325 Q St.

Auslander Apartment
1500 15th St.

Cordy Manor
1331 P St.

Apartments

1511 Capitol Avenue
1525 Capitol Avenue
1316 N St.
1320 N St.
1400 N St.
1522 N St.
1228 O St.
1316 O St.
1317 O St.
1414 O St.
1420 O St.
1209 P St.
1517 12th St.
1521 12th St.
1311 15th St.
1510 15th St.
1514 15th St.
1201 P St.
1215 P St.
1506 13th St.
1327 O St.
1617 O St.
1631 O St.
1625 O St.
1622 N St.
1619 Q St.
1616 N St.
1212 P St.
1220 P St.
1615 P St.
1216 P St.
1223 Q St.
1201 Q St.
1321 Q St.
1501 15th St.
11th & R St.

Commercial/Apartment

1317 15th St.

Durabuilt Transmission
1616 L St.

Capitol Gardens
1517 N St.

Park Mansion Apartment
1525 15th St.

Camellia Motel
1223 16th St.

Lutheran Thrift Shop
1630 L St.

Fleet Admin Parking
17th St.
15th St & Capitol
901 P St.
14th & N
12th & O
13th & P

CADA Block
714 O St.

Retail/Residential
1330 O St.

Commercial Office
1304 O St.

Greentree Townhomes
O St.

Stanford Court Townhomes
15th & P

Biele Place
1421 15th St.

Capitol View Motel
1530 N St.

Commercial/ Residential
1412 16th St.

Auto Repair Shop
1422 16th St.

Brannon Court
1500 N St.

Commercial Structure
1614 N St.

Commercial Structure
1417 16th St.

Commercial Structure
1413 16th St.

Commercial Building
1409 16th St.

17th Street Commons
1625 P St.

Somerset Parkside
1001 Q St.

Commercial/Residential
1525 16th St.

Air Cargo Building 2 6733 Lindbergh Drive	Assessor-South Area 5450 C Power Inn Rd.	Human Assistance 2007 19th St.
FIPO Offices and Hangar 6349 Lindbergh Drive	Alcohol & Drug 1708 Q St.	Social Service Office 2808 Q St.
Union Flight Building 6273 Freeport Blvd	Probation 711 E St.	Eligibility Program 6620 Folsom Blvd
CAAA 5999 Freeport Blvd	Administration Center 700 H St.	Personnel 710 J St.
Cartwright Aerial 5979 Freeport Blvd	Lorenzo E. Patino Hall 6511 I St.	Social Services Office 4990 Stockton Blvd
USAM/Van Dusan 5957 Freeport Blvd	Domestic Relations 20 Bicentennial Drive	Building Design 609 9th St.
Werlof's Building 6289 Freeport Blvd	Work Release Facilities N. 5th St.	Superior Court-Settlement 721 9th St.
American Aerial 6249 Freeport Blvd	Mental Health Center 2150 Stockton Blvd	Municipal Court 520 9th St.
Terminal Building 6151 Freeport Blvd	8th & G St. Building	Public Defender 901 H St.
16 T Hanger Buildings 6421 Freeport Blvd	Environmental Management Dept. 8345 Folsom Blvd	City/County Flood Agency 926 J St.
Altair Aviation 6363 Freeport Blvd	Coroner's Warehouse 4330 2nd St.	Social Services 4433 Florin Road
Consumer/Environmental 713 9th St.	Main Systems & Data 1238 S St.	Municipal Court 930 G St.
N.E. Sewage Treatment & Sheriff's Academy 1000 River Walk Way	Social Services Office 2800 Q St.	Sheriff's Warehouse 314 N. 12th St.
Public Defender 715 9th St.	Office 4221 North Freeway Blvd	PW Surveys 6001 I St.
Office 711 G St.	Public Works 1007 7th St.	Sheriff-Civil Division 520 9th St.
Social Services 1725 28th St.	College Advocate's Office 1100 K St.	Women, Infants Asst. 2251 Florin Road
South Area 7222 24th St.	Accounting and Fiscal 660 J St.	Carol Miller Justice Center 301 Bicentennial Circle
South Area 7220 24th St.	Superior Court 800 H St.	Transportation Division 906 G St.
South Area 7200 24th St.	Spink Building 720 F St.	Records Storage 1007 7th St.
New Helvetia 776 Revere St.	Downtown Parking 625 7th St.	Probation 3201 Florin-Perkins Road

Florin Center
5555 Sky Parkway, Suite C
Sacramento, 95823

Libraries

Arden Branch
891 Watt Avenue
Sacramento, 95864

Belle Coolidge
5600 S. Land Park Drive
Sacramento, 95822

King Regional
7340 24th Street
Sacramento, 95822

McClatchy Branch
2112 22nd Street
Sacramento, 95818

McKinley Branch
601 Alhambra Blvd.
Sacramento, 95816

North Sacramento/Hagginwood
2109 Del Paso Blvd.
Sacramento, 95815

Rancho Cordova Community
9845 Folsom Blvd
Sacramento, 95827

Southgate Community
6132 66th Avenue
Sacramento, 95823

State Library
9th & Capitol Mall
Sacramento, 95814

Nursing Homes

Asian Community Nursing Home
7801 Rush River Dr.
Sacramento, 95831

Bruceville Terrace Skilled
Nursing Facility
8151 Bruceville Road
Sacramento, 95823

Crestwood Manor
2600 Stockton Blvd
Sacramento, 95817

Estelle's Residential Care for the Elderly
2306 Verdon Way
Carmichael

Florin Convalescent Hospital
7400 24th
Sacramento, 95822

Gardens Skilled Nursing Facility
2221 Fair Oaks Blvd

Gramercy Court Arden Arcade
2200 Gramercy Drive
Sacramento, 95825

Greenhaven Country Place
455 Florin Road
Sacramento, 95831

Hillhaven Saylor Lane Healthcare Center
3500 Folsom Blvd
Sacramento, 95816

Hillhaven - Sherwood Convalescent
Hospital
4700 Elvas Avenue
Sacramento, 95819

Lidia's Care Home for the Elderly
240 Haggin Avenue

Mount Olivette Meadows
Convalescent Hospital
2240 Northrop Avenue
Sacramento, 95825

Mercycare
862 39th St.
Sacramento, 95816

Pioneer House-Retirement
415 P St.
Sacramento, 95814

Pleasant Care Convalescent Hospital
6821 24th St.
Sacramento, 95822

River Oaks Care Center
2257 Fair Oaks Blvd
Sacramento, 95825

Riverside Convalescent Hospital
1090 Rio Lane
Sacramento, 95822

Rogers Care Home
4370 Fallow Drive

Royal Manor Convalescent Hospital
5901 Lemon Hill Ave.
Sacramento, 95824

Sacramento Convalescent Hospital
3700 H
Sacramento

Saint Claire's Nursing Center
6248 66th Avenue
Sacramento, 95823

Salvation Army
6046 Lemon Hill Avenue

Sherwood-Hillhaven
Convalescent Hospital
4700 Elvas Avenue

Sutter Oaks Nursing Center
3400 Alta Arden Expressway
Sacramento, 95825

Sutter Oaks Nursing Center
2600 L St.
Sacramento, 95816

Valley Skilled Nursing Facility
2120 Stockton Blvd
Sacramento, 95817

Parks

Arden Manor District

Jonas Larkspur Park
Larkspur Lane and Jonas Avenue
Sacramento, 95864

Wintersein Community Park
Morse and Northrop Avenues
Sacramento, 95864

Cordova District

Hagan Community Park
Chase Drive
Rancho Cordova, 95670

Federspiel Park
Chassella Way and Barbera Way
Rancho Cordova, 95670

Ahlstron Park
Zinfandel Drive
Rancho Cordova, 95670

Rossmoor Park
Ambassador and Forestlake Drives
Rancho Cordova, 95670

Glenbrook Park
La Riviera Drive and Waterglen Circle
Sacramento, 95826

Glen Hall Park
Carlson and Sandburg Drives
Sacramento, 95819

Grant Park
21st and C Streets
Sacramento, 95816

Johnston Park
Eleanor Avenue and Elm Street
Sacramento, 95815

Mangan Park
34th Avenue and Brad Way
Sacramento, 95824

McClatchy Park
5th Avenue and 35th Street
Sacramento, 95818

McKinley Park
Alhambra and McKinley Boulevards
Sacramento, 95816

Meadowview Park
24th Street and Meadowview Road
Sacramento, 95832

Miller Park
Front Street and Broadway
Sacramento, 95818

Northgate Park
Mendel Way and Brewerton Drive
Sacramento, 95833

Oki Park
Wissemann Drive and Everglade Street
Sacramento, 95826

O'Neil Park
6th Street and Broadway
Sacramento, 95818

Redwood Park
Redwood and West Camino Avenue
Sacramento, 95815

Reichmuth Park
Gloria Drive and 43rd Avenue
Sacramento, 95822

Roosevelt Park
10th and P Streets
Sacramento, 95814

Southside Park
6th and T Streets
Sacramento, 95818

Stanford Park
27th and C Streets
Sacramento, 95816

Valley Hi Park
Center Parkway and Arroyo Vista Drive
Sacramento, 95823

Wood Park
Cherrywood Circle
Sacramento, 95823

Z'berg Park
Branwood Way and Alma Vista Way
Sacramento, 95831

Schools/Colleges

Del Paso Heights School District

Garden Valley Elementary
3601 Larchwood Drive
Sacramento, 95834

Elk Grove Unified School District

Florin Elementary
7300 Kara Drive
Sacramento, 95828

Isabelle Jackson Elementary
8351 Cutler Way
Sacramento, 95828

Samuel Kennedy Elementary
7037 Briggs Drive
Sacramento, 95828

Anna Kirchgater Elementary
8141 Stevenson Avenue
Sacramento, 95828

Herman Leimbach Elementary
8101 Grandstaff Dr.
Sacramento, 95823

Charles E. Mack Elementary
4701 Brookfield Dr.
Sacramento, 95823

Prairie Elementary
5251 Valley Hi Drive
Sacramento, 95823

David Reese Elementary
7600 Lindale Drive
Sacramento, 95828

John Reith Elementary
8401 Valley Lark Dr.
Sacramento, 95823

Sierra Enterprise Elementary
5501 Hedge Avenue
Sacramento, 95826

Mary Tsukamoto Elementary
8737 Brittany Park Drive
Sacramento, 95828

Union House Elementary
7850 Deer Creek Drive
Sacramento, 95823

Samuel Jackman Middle
7925 Kentwal Drive
Sacramento, 95823

James Rutter Middle
7350 Palmer House Dr.
Sacramento, 95828

Florin High
7956 Cottonwood Lane
Sacramento, 95828

Valley High
6300 Ehrhardt Ave.
Sacramento, 95823

Folsom Cordova Unified School District

Cordova Gardens Elementary
2400 Dawes Street
Rancho Cordova, 95670

Cordova Lane Elementary
2460 Cordova Lane
Rancho Cordova, 95670

Cordova Meadows Elementary
2550 La Loma Drive
Rancho Cordova, 95670

Peter J Shields Elementary
10434 Georgetown Drive
Rancho Cordova, 95670

Rancho Cordova Elementary
2562 Chasella Way
Rancho Cordova, 95670

Reymouth Elementary
10460 Reymouth Street
Rancho Cordova, 95670

Nicholas 6601 Steiner Drive Sacramento, 95823	Genevieve F Didion 6490 Harmon Drive Sacramento, 95831	Luther Burbank High 3500 Florin Road Sacramento, 95823
O W Erlewine 2441 Stansberry Way Sacramento, 95826	John Still Center 2260 John Still Drive Sacramento, 95832	Sacramento High 2315 34th Street Sacramento, 95817
Pacific 6201 41st Street Sacramento, 95824	Leonardo de Vinci 4701 Joaquin Way Sacramento, 95822	Thurgood Marshall 1400 Kickson Street Sacramento, 95822
Parkway 4720 G Parkway Sacramento, 95823	Albert Einstein Middle 9325 Mirandy Drive Sacramento, 95826	San Juan Unified District Gold River Discovery Center 2200 Roaring Camp Drive Rancho Cordova, 95670
Peter Burnett 6032 36th Avenue Sacramento, 95824	California Middle 1600 Vallejo Way Sacramento, 95818	Greer 2301 Hurley Way Sacramento, 95825
Phoebe Apperson Hearst 1410 60th Street Sacramento, 95819	Charles M Goethe Middle 2250 68th Avenue Sacramento, 95822	Sierra Oaks 171 Mills Road Sacramento, 95864
Pony Express 1250 56th Avenue Sacramento, 95831	Fern Bacon Basic Middle 4140 Cuny Avenue Sacramento, CA 95823	Jonas Salk Middle 2950 Hurley Way Sacramento, 95864
Sequoia 3333 Rosemont Drive Sacramento, 95820	Kit Carson Middle 6301 N Street Sacramento, 95816	Encina High 1400 Bell Street Sacramento, 95825
Susan B Anthony 7864 Detroit Blvd Sacramento, 95832	Sam Brannon Middle 5301 Elmer Way Sacramento, 95822	Rio Americano High 4540 American River Drive Sacramento,
Sutterville 4967 Monterey Way Sacramento, 95822	Sutter Middle 3150 I Street Sacramento, 95816	Colleges California State University 6000 J Street Sacramento, 95819
Thomas Jefferson 2635 Chestnut Hill Drive Sacramento, 95826	Will C Wood Middle 6201 Lemon Hill Avenue Sacramento, 95823	Cosumnes River 8401 Center Parkway Sacramento, 95823
Washington 520 18th Street Sacramento, 95814	American Legion High 3801 Broadway Sacramento, 95817	McGeorge School of Law 5th Avenue & 33rd Street Sacramento, 95817
William Land 2120 12th Street Sacramento, 95818	C K McClatchy High 3066 Freeport Blvd Sacramento, 95818	5th Avenue & 33rd Street 3500 5th Ave
Woodbine 2500 52nd Avenue Sacramento, 95822	Hiram Johnson West Campus High 5022 58th Street Sacramento, 95820	Sacramento City 3835 Freeport Blvd. Sacramento, 95818
Caleb Greenwood 5457 Carlson Drive Sacramento, 95819	John F Kennedy High 6716 Gloria Drive Sacramento, 95831	State-Owned Buildings State Capitol

STATEMENT OF DAN MCGUINNESS, DIRECTOR, UPPER MISSISSIPPI RIVER CAMPAIGN,
NATIONAL AUDUBON SOCIETY

The National Audubon Society is pleased to communicate our enthusiastic support for the Environmental Management Program (EMP) on the Upper Mississippi River. As a national conservation organization with 43 chapters and 40,000 members in the Upper Mississippi River Basin, we urge the Senate to include language in the Water Resources Development Act of 1998 to reauthorize the Environmental Management Program as a program of the Corps of Engineers, at an authorized funding level of \$33,170,000 in fiscal year 1999 and each year thereafter, with periodic reports to Congress.

The National Audubon Society enthusiastically supports the reauthorization of the EMP based upon the recognition that the Upper Mississippi River is both a nationally significant ecosystem and a nationally significant commercial navigation system, as stated by Congress in the Water Resources Development Act (WRDA) of 1986. The EMP is the primary means by which Congress can convert that ideal into reality.

We urge that the EMP program be reauthorized with continuing authority and funding because river monitoring and habitat rehabilitation must be an ongoing, active, and long-term process to be biologically successful and to be an efficient expenditure of public funds. This is just as true for the river ecosystem as it is for the river's commercial navigation system, which already has continuing authority and funding.

EMP is a critical Federal-State and interagency partnership

Since it was originally authorized in 1986, the EMP has been the only program that provides the means to monitor the entire Upper Mississippi River system and implement projects throughout this entire system. While the Department of the Interior has owned and managed parts of the floodplain for nearly 75 years as part of the National Wildlife Refuge System, these refuge lands account for only about 15 percent of the river's natural floodplain. The EMP is a key existing opportunity to improve the refuges, yet go beyond their boundaries to look at the Upper Mississippi River in its totality as an ecosystem.

There is much significant habitat outside of the current boundaries of the refuge system that contributes to the river's biological diversity, its recreational use, and its economic value. For example, a re-authorized EMP is an opportunity to evaluate the biologically rich confluence areas of tributaries such as the Vermillion, Cannon, Chippewa, Whitewater, Zumbro, Root, Black, Upper Iowa, Turkey, and Wisconsin Rivers to determine the role they play in the large river floodplain ecosystem and consider the appropriate roles of Federal, State, and local units of government and citizen groups in the protection and enhancement of such areas.

Since the 1970's, when the GREAT studies were implemented, followed by the Upper Mississippi River System Master Plan in the early 1980's, there has been an evolving culture of partnerships and public participation created, and now expected, as "the way we do business" on the river. The EMP provides the necessary infrastructure and support systems for all stakeholders to continue to work together on a wide spectrum of projects of importance to the river and its broad constituency.

Reauthorization should extend and improve the EMP

In addition to several programmatic recommendations contained in the Division Engineer's Notice, we support the following specific recommendations (listed on page 7 of the December 18, 1997, Division Engineer's Notice) which require congressional authority:

1. Congress should further amend section 1103 of WRDA 1986, as previously amended, to provide for the continuing authorization of a program for the implementation and evaluation of measures for fish and wildlife habitat restoration, protection, enhancement, and for resource monitoring and research.
2. The annual amount authorized to be appropriated for the program for the implementation and evaluation of Habitat Rehabilitation and Enhancement Projects (HREPS) should be increased to \$22,750,000.
3. Current program authorization language specifying separate Long Term Resource Monitoring and Computerized Inventory and Analysis program elements should be rewritten to identify single long-term resource monitoring, data analysis and applied research element, herein referred to as the Long Term Resource Monitoring Program (LTRMP).
4. The annual amount authorized to be appropriated for the LTRMP, which is 100 percent federally funded, should be increased to \$10,420,000.
5. The Secretary of the Army, in consultation with the Secretary of the Interior ends the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, should be required to submit a report to Congress by December 31, 2004 and every 6 years describing the accomplishments of the programs; providing updates of a systemic habitat needs assessment; and identifying any needed adjustments (e.g. funding level, program scope, etc.) in the authorization. Submittal of this report is to be timed so as to allow consideration as part of a comprehensive Water Resources Development Act.
6. Cost sharing for EMP projects should be continued as prescribed by section 906(e) of WRDA 1986, under which implementation costs of projects "on lands managed as national wildlife refuge" are 100 percent Federal, and implementation costs of all other projects are shared 75 percent Federal/25 percent non-Federal (subject

to other provisions as described in subsequent sections of the Division Engineer's Notice).

We also urge the committee to provide for the indexing of the new cost ceilings established for EMP. Making statutory allowance for changes in the cost indices applicable to the types of projects carried out through the EMP will avoid erosion of the purchasing power needed to carry out this long-term program.

As an organization with strong roots in the five States of the Upper Mississippi Watershed, we hope that this statement from "the people back home" will help our Members of Congress unite to support this important program and the future ecological health of the lands and waters along some 1,300 miles of the Upper Mississippi River System.

STATEMENT OF CHARLES W. MURPHY, CHAIRMAN, STANDING ROCK SIOUX TRIBE

Chairman Warner and subcommittee members, my name is Charles W. Murphy, and I serve as the chairman of the Standing Rock Sioux Tribe. The Standing Rock Indian Reservation consists of 2.3 million acres in the northern plains. The Missouri's main channel constitutes the eastern boundary of the existing Standing Rock Indian Reservation, while the east bank constitutes the eastern boundary of the Great Sioux Reservation, of which we belong. Consequently, we are very concerned with Senate proposals impacting the Missouri's water and wildlife resources.

I am requesting that my testimony be included in the subcommittee record on S. 2131, the Water Resources Development Act of 1998. I am generally unconcerned with the existing provisions of S. 2131. However, Senator Daschle has introduced the S. 1341, the Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Mitigation Act. This bill authorizes certain Corps of Engineers land transfers, requires certain jurisdictional shifts on the Missouri River relating to Indian fishing, and provides funding to two Indian Tribes and the State of South Dakota for wildlife mitigation along the Missouri River. These provisions have potential far-reaching impacts on the fishing rights and other rights of the enrolled members of the Standing Rock Sioux Tribe, for the site of Oahe Reservoir. I appreciate the committee's consideration of my concerns on S. 1341.

S. 1341 contains a proposed congressional finding in Section 2(a)(6) that "as a result of the inundation from the construction of the Big Bend and Oahe projects, the State of South Dakota and the 4 Indian Reservations.. lost approximately 250,000 acres of fertile, wooded bottom land along the Missouri River." Indeed, Standing Rock's losses were overwhelming.

Under authority provided by Congress in Public law 85-915, the Corps of Engineers purchased just under 56,000 acres of Missouri River bottomlands from the Standing Rock Sioux Tribe, to provide land for the site of the Oahe Reservoir. Four of the eight communities on our Reservation were relocated by the Corps of Engineers, against our wishes, for the Oahe project.

These communities were destroyed, along with the wooded bottomland area. The communities were reconstructed in part, on the great plains above the river, which has no trees, less arable soils, and very poor groundwater. Nearly over night, our Reservation was transformed from a self sustaining community with an economy based on timber, agriculture and grazing in the bottomlands, to a welfare economy and a dispossessed community.

Author Michael Lawson has described the Oahe Dam's impacts on the Standing Rock Reservation as follows:

The shaded bottom lands provided a pleasant living environment with plenty of wood, game, water and natural food resources. The trees along the Missouri and its tributaries were a primary source of fuel and lumber for the tribes and (provided protection) . . . from the ravages of winter preserving of wild fruits and vegetables was traditional facet of Plains Indian culture. The numerous types of herbs, roots, berries, and beans that grew in the bottom lands added bulk and variety to the diet, and were used for medicinal and ceremonial purposes.

The wooded bottom lands also serve as shelter and feeding grounds for many species of wildlife, and hunting and trapping were important sources of food, income and recreation for the tribes. The loss of bottom land grazing areas crippled tribal livestock operations, once the primary industry on many reservations. Artificial shelters had to be built to replace the natural resources of the old habitat. Stock raising thus became far more difficult, expensive and risky.

The Pick-Sloan projects damaged every aspect of reservation life. Abruptly the Tribes lost the basis for their subsistence and had to develop new ways of

making a living in a cash economy. The relocation of the agency headquarters and largest communities . . . disrupted Federal and tribal services, and tipped the social, economic, and religious fabric of the well-integrated tribal life. It was especially onerous for the Indians to excavate their cemeteries and private burial grounds and to relocate their ancestors' remains.

Psychological and aesthetic damages are impossible to measure, but the Indians' lifestyle made the effects of Pick-Sloan especially difficult. Unlike most non-Indians affected by public works projects, these tribal members could not duplicate their old ways of life by moving to a similar environment. Their old ways of life were shaped by a land which no longer existed, after the bottom lands were flooded . . .

The marginal lands which remained after inundation could not replace the natural advantages of the Indians' former homes. The barren uplands regions where the Indians were forced to move, were less hospitable and more difficult survive.

Michael M. Lawson, *Dammed Indians—Pick Sloan Plan and the Missouri River Sioux*, University of Oklahoma Press (1982).

One of the relocated communities at Standing Rock, Kenel community, has a cemetery, where many of the graves were relocated upon construction of Oahe Dam. However, there is a very large memorial stone, which reads: "This honors the memory of the Kenel community members whose remains were buried in the Missouri River bottomlands but were not properly disinterred and relocated by the Army Corps of Engineers. . . ."

Mr. Chairman, our Tribal members know very well the suffering and the loss of land and wildlife habitat caused by Oahe Dam. We must live with the destruction of our ancestors' graves.

Accordingly we are concerned with a proposal such as S. 1341, which purports to redress some of the injustices imposed on account of the construction of Oahe Dam. In fact, in Title XXV of the Water Resources Development of Act of 1992 (P.L. 102-575), the Congress enacted the Three Affiliated Tribes of the Fort Berthold Reservation and Standing Rock Sioux Tribe Equitable Compensation Act. Acknowledging the detrimental impact, inadequate land appraisals and mistreatment of our Tribe, this act provided for the creation of the Standing Rock Economic Recovery Fund in the amount of \$90.5 million, deposited from COE hydropower revenues.

S. 1341 proposes to capitalize Wildlife Mitigation funds using the very same funding mechanism developed by our Tribe and endorsed by Congress in the Equitable Compensation Act.

Nevertheless, in the Equitable Compensation Act the Congress also reverted the strip of Corps of Engineers land above the Oahe Reservoir level within our Reservation, back to the Tribe and our Tribal members. But subsequently certain sportsmen's groups expressed opposition to the land transfer, and Congress repealed this provision in the Act of February 12, 1994. The land reversion to Standing Rock, the resulting controversy and the repeal of this land transfer led up to the provisions contained in S. 1341.

There are four primary parts to S. 1341:

1. The transfer of on-Reservation Corps of Engineers lands along the Missouri River to the Lower Brule and Cheyenne River Sioux Tribes (Section 5(a)).
2. Long-term leases of COE recreation areas to South Dakota (Section 4).
3. Conditions to the land transfers to the two Tribes, including limits on their right to establish their own fishing regulations and the requirement of cross-deputizing their Tribal Conservation Officers with South Dakota (Section 5(d)).
4. Authorization of wildlife mitigation and establishment of hydropower-financed wildlife mitigation funds in the amount of \$108 million for South Dakota and \$47.4 million for the two Tribes. (Sections 7 and 8).

Notwithstanding the very laudable efforts of Senator Daschle to address the land and wildlife issues, the Standing Rock Sioux Tribe opposes S. 1341. It arose from a land transfer dispute on our Reservation. A non-partisan Commission appointed by Interior Secretary Hodel in 1985 recommended that the strip of COE lands above the reservoir level at Standing Rock be transferred back to the former Indian landowners.

As described above, the Congress implemented this provision in the Equitable Compensation Act, but subsequently repealed it when local fisherman expressed vocal opposition. Their opposition was based on a concern that by controlling this land, the Tribe would limit their access to the Missouri River for fishing. Ironically, the very reason we sought the return of this land was to enhance recreation opportunities, and commerce on the Reservation. Yet Congress repealed the land transfer in February, 1994, and the Corps of Engineers investigated the options for reverting

this land—which totals approximately 16,000 acres at Standing Rock—to the Tribe administratively. The Corps ceased the negotiations with our Tribe for an administrative land transfer, upon the introduction of S. 1341.

The Standing Rock Sioux Tribal Council supports the unconditional land transfer of Corps of Engineers lands along the Missouri River and within Reservation boundaries, to Indian Tribes, with no conditions. This was recommended for Standing Rock in the Joint Tribal Advisory Committee Final Report (May 25, 1986), and endorsed by Congress, albeit temporarily, in the Equitable Compensation Act contained in the 1992 WRDA. Section 7 of the Oahe Taking Act (P.L. 85-915) similarly contemplated the reversion of surplus taken land to the Tribes, without any jurisdictional stipulations.

The Tribal Council does not oppose the wildlife mitigation provisions in S. 1341. We are aware of the need for enhanced Federal funding for wildlife mitigation, as provided in Sections 6 and 7 of S. 1341.

However, we oppose the congressional directive for long-term recreational leases to South Dakota contained in Section 4. This may be accomplished administratively, without Congress dictating long-term leases. The congressional directive may have unintended, negative impacts on Native cultural resources and environmental resources along the Missouri River. We are especially sensitive to the protection of our cultural resources, in light of their historical destruction for the Oahe Dam and reservoir project.

In addition, we are quite concerned with the conditions placed on the land transfer to the Tribes, contained in Section 5(d). This section requires the Cheyenne River Sioux Tribe, our neighboring Reservation where many Standing Rock Tribal members fish on the Missouri River, to comply with State fishing laws. This section also authorizes South Dakota Conservation Officers to exercise authority over Indians fishing the Missouri on the Cheyenne River Reservation. Since many Standing Rock Tribal members do so, we are very concerned with this provision.

The area's busiest boat ramp is the Indian Memorial site, on the Standing Rock Indian Reservation. Section 5(d) would encourage South Dakota Conservation Officers to enter the Standing Rock Indian Reservation, launch boats onto the Missouri River and exercise authority over Indians fishing in the neighboring area at Cheyenne River. They could easily mistake a Standing Rock Tribal member for a Cheyenne River Tribal member, and purport to exercise authority over Standing Rock fishers, although current law prohibits this and unlike Cheyenne River we have not consented to it.

Contrary to the proposal congressional purpose in Section 2(b)(2) that the bill would "settle long-standing jurisdictional disputes", Section 5(d) would undoubtedly cause new jurisdictional disputes for our Tribe. The language in this Section is also vague and ambiguous. We are concerned that it might be interpreted adversely to our interests, and have long-term detrimental impacts on our fishing rights and our water rights. We are thus compelled to oppose Section 5(d).

In sum, I applaud Senator Daschle's efforts to address these difficult and controversial issues. Standing Rock does not oppose the establishment of wildlife funds, as provided in Sections 7 and 8 of S. 1341. However, we are compelled to oppose the substantial changes in existing law reflected in the other sections of this bill. I respectfully request that the committee limit its deliberations of S. 1341 to the mitigation provisions contained in Sections 7 and 8, and that none of the other provisions of S. 1341 be recommended to the Senate for passage.

MINNESOTA-WISCONSIN BOUNDARY AREA COMMISSION,
Hudson, WI, June 19, 1998.

Hon. JOHN WARNER and MAX BAUCUS,
U.S. Senate, Washington, DC.

DEAR SENATORS WARNER AND BAUCUS: The Minnesota-Wisconsin Boundary Area Commission, an interstate agency comprised of ten members appointed by the Governors of Minnesota and Wisconsin, respectfully requests that the enclosed statement on behalf of the Commission be entered in the record of the hearings of the subcommittee regarding a Water Resources Development Act of 1998.

For more than 30 years the Commission has conducted studies, fostered intergovernmental partnerships and assisted its sponsor States in their participation in major Federal programs for balanced multi-purpose use, protection and development of the Upper Mississippi River on our interstate border. We applaud the Congress for having officially declared, in Section 1103 of WRDA 86, that the river is "a nationally significant ecosystem and a nationally significant commercial navigation system." Accordingly, the Commission recommends that the Congress now reauthor-

ize the proven Upper Mississippi River Environmental Management Program to continue the well-established balanced river management in the national interest.

Thank you for receiving our statement, of which we have provided five copies, as advised by subcommittee staff to be shared with the other members.

Sincerely yours,

JAMES M. HARRISON,
Public Affairs Director.

STATEMENT OF THE MINNESOTA-WISCONSIN BOUNDARY AREA COMMISSION

The Minnesota-Wisconsin Boundary Area Commission (MWBAC) is pleased to take this opportunity to communicate our enthusiastic support for the Environmental Management Program (EMP) on the Upper Mississippi River. As a citizen-based, Commission funded by the legislatures of both Minnesota and Wisconsin, we successfully urged Congress to establish this program in the Water Resources Development Act of 1986. We urge Congress again, in this session, to include language in the Water Resources Development Act of 1998 to reauthorize the Environmental Management Program, as a program of the U.S. Army Corps of Engineers, with continuing authority and periodic reports to Congress as described further herein.

Our support for this program is based upon our review of the report and recommendations transmitted with the U.S. Army Corps of Engineers, Mississippi Valley Division Engineers Engineer's Notice of December 18, 1997. This is the most current document available to us at the time our comments were prepared. We are aware, however, that a report is imminent from the Office of the Chief of Engineers and we look forward to reviewing that document as well.

The MWBAC enthusiastically supports the reauthorization of the EMP based upon our fundamental belief that the Upper Mississippi River is both a nationally significant ecosystem and a nationally significant commercial navigation system, as stated by Congress in the Water Resources Development Act of 1986. The EMP is the primary (but not only) means by which Congress can convert that ideal into reality for this river's ecosystem.

The MWBAC enthusiastically supports the reauthorization of the EMP as a program with continuing authority and funding because it is the key program in support of operation and maintenance of the Upper Mississippi River ecosystem. We believe, especially, that it needs to be a program with continuing authority because, to be an effective and efficient expenditure of public funds, and to be biologically successful, river monitoring and habitat rehabilitation must be an ongoing and active, long term process. This is just as true for the river ecosystem as it is for the river commercial navigation system, which already has continuing authority and funding.

The following paragraphs highlight some specific points we wish to bring to your attention about the importance of this program to the citizens of the five States along this river, and to the ten Senators and the 48 Representatives who have districts in the Upper Mississippi River Basin within those States:

- Since it was formally authorized in 1986, the EMP has been the only program that provides the Federal Government, within a working partnership, the means to monitor the entire Upper Mississippi River System and implement projects within the entire System. While the Department of Interior has owned and managed parts of floodplain for nearly 75 years as part of the National Wildlife Refuge System, the refuge lands account for only about 15 percent of the river's natural floodplain. The EMP is a key existing opportunity to include the refuges, yet go beyond their boundaries, to look at the Upper Mississippi River in its totality as an ecosystem.

- There is much significant habitat outside of the current boundaries of the refuge system that contributes to the river's biological diversity, its recreational use and its economic value. A re-authorized EMP is an opportunity to look at such areas as the biologically rich confluence areas of tributaries such as the Vermillion, Cannon, Chippewa, Whitewater, Zumbro, Root, Black, Upper Iowa, Turkey and Wisconsin Rivers (for example, in this region) to evaluate the role they play in the large river floodplain ecosystem as well as the appropriate roles of the Federal Government, the States, local units of government and citizen groups, in the protection and enhancement of these areas.

- Since the 1970's, when the GREAT studies were implemented, followed by the Upper Mississippi River System Master Plan in the early 1980's, there has been an evolving culture of partnerships and public participation created, and now expected, as "the way we do business" on the river. The EMP provides the necessary infrastructure and support systems to continue to work together on a wide spectrum of projects of importance to the river and its broad constituency.

• In addition to several programmatic recommendations contained in the Division Engineer's Notice, we support the following specific and key recommendations (listed on page 7 of the December 18, 1998, Division Engineer's Notice) which require congressional authority:

1. Congress should further amend Section 12103 of the Water Resources Development Act (WRDA) of 1986, as previously amended, to provide for continuing authorization of a program for the implementation and evaluation of measures for fish and wildlife habitat restoration, protection, enhancement, and for resource monitoring and research.

2. The annual amount authorized to be appropriated for the program for the implementation and evaluation of Habitat Rehabilitation and Enhancement Projects (HREPS) be increased to \$22,420,000.

3. Current program authorization language specifying separate LTRM [Long Term Resource Monitoring] and CIA [Computerized Inventory and Analysis] program elements be rewritten to identify single long-term resource monitoring, data analysis and applied research element, herein referred to as the LTRMP [Long Term Resource Monitoring Program].

4. The annual amount authorized to be appropriated for the LTRMP, which 100 percent federally funded, be increased to \$10,420,000.

5. The Secretary of the Army, in consultation with the Secretary of the Interior ends the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, be required to submit a report to Congress every 6 years describing the accomplishments of the programs; providing updates of a systemic habitat needs assessment; and identifying any needed adjustments (e.g. funding level, program scope, etc.) in the authorization. Submittal of this report is to be timed so as to allow consideration as part of a Comprehensive Water Resources Development Act.

6. Cost sharing for EMP projects be continued as prescribed by Section 906(e) of the Water Resources Development Act of 1986, under which implementation costs of projects "on lands managed as national wildlife refuge" are 100 percent Federal, and implementation costs of all other projects are shared 75 percent Federal/25 percent non-Federal [subject to other provisions as described in subsequent sections of the Division Engineer's Notice].

The Minnesota-Wisconsin Boundary Area Commission has been an active participant in the development of the EMP Report to Congress which is now working its way through the U.S. Army Corps of Engineers offices to the Assistant Secretary of the Army. You can be assured that we, along with the Upper Mississippi River Basin Association, and several non profit organizations and citizen interests, are urging the Administration and the Corps to support the reauthorization of this program, with the above key features included.

As a citizen-based Commission, we hope this testimony to you, from "the people back home" will help our Members of Congress also unite to support this important program and to support the future ecological health of the lands and waters along some 1,300 miles of the Upper Mississippi River System.

STATEMENT OF JOHN C. BEYKE, P.E., DIRECTOR OF ENGINEERING AND CHIEF ENGINEER, LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT

INTRODUCTION

I am John Beyke, Director of Engineering and Chief Engineer for the Louisville and Jefferson County Metropolitan Sewer District and President of the National Association of Flood and Stormwater Management Agencies (NAFSMA). NAFSMA is a national organization representing flood control and stormwater management agencies serving a total population of more than 76 million citizens. 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 which 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, while others have been in the past or are planning potential future water resources projects. Most of these projects have been in the area of flood control, although some of our members are involved in navigation or erosion projects with the Corps.

NAFSMA appreciates this opportunity to share our views on the Water Resources Development Act of 1998 and commends the Transportation and Infrastructure Subcommittee for its commitment to keep the Water Resources Development Act as

close as possible to a 2-year reauthorization cycle initiated with the passage of WRDA 86. The association is committed to working with the committee and staff to develop WRDA 98 and urges that the committee closely consider our concerns outlined below.

The Federal-Non-Federal Flood Control Partnership

Since its inception, NAFSMA has worked closely with the Corps of Engineers on various issues and projects. With the enactment of cost sharing in WRDA 1986, our relationship with the Corps has focused on partnership issues, beginning with the successful Joint Partnership Workshop held with the Corps in Scottsdale in December 1989. As a result of this national workshop and subsequent discussions to follow up with issues identified at this session, NAFSMA in late 1990 entered into a Joint Partnership Task Force with the Corps, one of the products of which was the model Project Cooperation Agreement (PCA) for structural flood control projects originally released for use in the field in August 1992. This document replaced the former model Local Cooperation Agreement or LCA used by the Corps to define the responsibilities of the Corps and its non-Federal sponsors in specific projects. A revised version of the model PCA for structural flood control projects was released by the Corps in March 1994. NAFSMA is hoping to continue working with the Corps on remaining issues relating to the PCA and on other partnership issues relating to the project management process.

In late 1994, NAFSMA entered into a Joint Partnering Agreement with the Department of the Army designed to strengthen the relationship between the Corps and its non-Federal partners in structural flood control projects. Stressed throughout this agreement was the need for open communication, teamwork and continuous improvement of between the Corps and its local sponsors. Also incorporated into the document was the commitment to enhance the quality and cost effectiveness of floodplain map revisions through the sharing of resources such as mapping and computer models and promoting where appropriate the use of geographic information systems in map preparation.

Most recently, we have worked with the Corps to look at Real Estate issues as outlined in the Corps guidance referred to as Chapter 12.

NAFSMA recognizes the vital need for Federal participation in the critical area of flood protection. We also urge that Congress recognize that nationally, there are numerous life-saving projects that would not have been accomplished without a strong Federal interest and that the Federal Government needs to maintain its commitment to the Nation's flood control efforts. NAFSMA was a strong supporter of the cost sharing concept enacted in WRDA 1986 and our members, States, locals and special districts, have finally been able to move much-needed flood control projects as a result of this Federal/non-Federal cooperation. Without a Federal commitment to help in protecting lives and property, these projects so critical to protecting the public safety would not have been accomplished and many of the Nation's citizens would now be living or working in high risk situations.

The Corps partnership with Local Sponsors must continue. Although local sponsors are assuming much of the decisionmaking and many are able to assume much of the management of projects, great need for continued involvement of the Corps still exists.

It is important to remember that the Corps is able to provide significant environmental oversight to ensure that projects are sensitive to those elements. The Corps funding is essential to maintain this Nation's effort to prevent flood-related damages.

Adequate Funding for Corps Programs

Over the past few years, the Corps budget has been continually reduced or pegged for reductions. We believe this trend must be reversed. Stability in funding must occur in order that the Nation's commitment to vital infrastructure programs continues. Local communities and non-Federal sponsors will do our part, but we must have continued funding and support from the Corps to support our efforts.

Cost Sharing

We also need to point out that the current cost sharing ratio needs to stay in place. Our members supported leaving cost sharing at its WRDA 1986 levels of 75/25 and we urge that the current level of cost sharing not face any further increases in the sponsor share for flood control projects. There are many projects that could not be constructed should the sponsor cost share increase.

In light of essential ongoing flood control projects, as well as those projects in the feasibility study phase or even being discussed in very preliminary fashion in city halls nationwide, NAFSMA strongly supports the continuation of the Federal interest in structural flood control projects, both interstate and intrastate, as well as the

cost-sharing principles that were established in WRDA 1986. The non-Federal sponsors have met their requirements under the 1986 Act, it is our hope that the Federal Government will continue to live up to its commitment as outlined in this critical legislation.

NAFSMA has traditionally felt that moving from a 75 Federal/25 local to 65 Federal/35 local cost share greatly depletes NAFSMA member agencies' ability to manage critical water resource projects. NAFSMA believes that Congress should consider the addition of incentives into the formula to raise the cost sharing back to 75/25 to recognize good local flood management activities, such as participation in the National Flood Insurance Program.

Funding Schedule

Once a project is authorized, NAFSMA members urge that an appropriate funding schedule be adopted. NAFSMA urges that the upcoming WRDA bill begin to lay out what studies would be required to carry out a sound flood control program for the Nation.

Regulatory Impediments—Maintenance of Flood Control Facilities

It is extremely important that local agencies have the authority to maintain their flood control facilities in the interest of the health and welfare of their citizenry. In light of confusion in the field since the Corps of Engineers August 25, 1993 rule expanding the definition of "dredge and fill material," legislative changes are needed to clarify Section 404 permitting exemptions provided under the law. NAFSMA urges that legislation be adopted in WRDA 98 to more clearly exempt operations and maintenance of flood control channels and engineered flood control facilities from the Section 404 permitting process. It is NAFSMA's belief that the Tulloch rulemaking does not properly reflect congressional intent behind the Section 404 legislative language and the association is urging that Congress help the public agencies charged with the protection of lives and property by more clearly stating their specific intent concerning operations and maintenance of flood control channels and engineered flood control facilities.

NAFSMA urges that legislative language introduced by Rep. Howard (Buck) McKeon (R-CA) last October (H.R. 2741) to clarify the exemption provided under section 404(f)(1)(B) to allow vegetation or fill in channels that are part of flood control projects to be cleared be included as part of WRDA 1998. These maintenance efforts are critical to the serviceability of our Nation's flood control systems and are required as part of our agency's operation and maintenance activities required by both the Corps of Engineers and the Federal Emergency Management Agency's National Flood Insurance Program.

NAFSMA has been an amicus in the Tulloch rule litigation throughout the process, most recently filing a consolidated amicus curiae brief in the Tulloch rule litigation in the United States Court of Appeals for the District of Columbia Circuit on October 8, 1997. Oral argument was heard in the case (No. 96-5099 (Consolidated with No. 97-5112)) on January 8, 1998.

NAFSMA is pleased to report that the Court issued its decision on June 19 that the Tulloch rule was invalid. NAFSMA members are concerned however by reports that the Corps still is directing its field offices to enforce the now invalidated rulemaking and we are unsure as to how long this uncertainty may continue. NAFSMA urges Congress to direct the Corps to uphold the Court's decision in the Tulloch rulemaking and issue guidance to that effect, especially for flood control operations.

Based on the prior actions of the Corps and U.S. EPA, it is conceivable and possible that the corps will continue their futile legal crusade to uphold the Tulloch rule. In the meantime, NAFSMA urges that Congress clarify its initial exemption for flood control maintenance activities consistent with Congress's intent and the Court's recent ruling on this issue.

Contracting With Local Sponsors For Project Construction

NAFSMA commends the Water Resources Subcommittee for its work to authorize Section 211 in WRDA 1996 to allow for the Corps to contract with local sponsors to carry out a flood control project. This provision serves both the Federal Government and the sponsors' interests as a potential means to provide needed flood protection in as timely a fashion as possible. Our members are concerned, however, about the ability of the Corps of Engineers to reimburse sponsors in a timely fashion. NAFSMA urges that language be included in WRDA 1998 to reinforce that appropriate Federal appropriations are critical to the success of this important new program.

Administrative Appeals of Jurisdictional Determinations

NAFSMA urges this subcommittee to address the issue of administrative appeals for Corps' jurisdictional determinations through the Water Resources Development Act of 1998. Presently, a determination by the corps that a parcel of land contains jurisdictional wetlands, or that a particular activity requires a Clean Water Act Section 404 permit, is not reviewable in court until after an applicant has completed the permit process, which can take years and cost many thousands of dollars. Meanwhile, public interest suits can be brought immediately under the citizens suit provision of the Clean Water Act.

The President's 1993 Wetlands Plan directed the corps to eliminate this inequity by instituting an administrative appeals process for jurisdictional determinations. In fiscal year 1998, the Corps requested funding for an administrative appeals process (including jurisdictional determinations), and committed to implementing such a process if the funds were appropriated. Congress then provided the Corps Regulatory Program with a \$5 million increase in its fiscal year 1998 Regulatory Program budget, with specific direction that the increase be used to implement an administrative appeals process. Yet, the Corps has since indicated it will only implement a small part of the administrative appeals process in fiscal year 1998, and won't provide for administrative appeals of jurisdictional determinations that a particular piece of land or a particular activity requires a Corps permit. Meanwhile, the corps has requested \$4.5 to \$5 million in fiscal year 1999 funds, once again promising to implement an administrative appeals process including jurisdictional determinations. Further, the Corps' proposal for the administrative appeals process for jurisdictional determinations calls for a two-step process that would needlessly cause delay and impose unnecessary expense on the Corps Regulatory Program.

The portion of the administrative appeals process that the Corps proposes to implement in fiscal year 1998 will only allow appeals of individual permit denials and declined permits, not of jurisdictional determinations. However, Corps records show that in fiscal year 1997 there were only 28 individual permit denials, out of 65,138 formal actions on 494 permit applications. Thus, the effect of the Corps's plan is to block timely judicial review for the 28 people who already have it, and to continue to deny review for the thousands who do not. NAFSMA has joined a number of organizations that represent companies and public entities which apply to the Corps for Section 404 permits, who have come together informally to encourage the development of stream-lined, single-level administrative appeals process for jurisdictional determinations.

The inability to access affordable, timely reviews of jurisdictional claims made by the Corps has a very negative impact on NAFSMA members and many others. Accordingly, NAFSMA urges the subcommittee to include free-standing legislative language directing full implementation of a single-level administrative appeals process for jurisdictional determinations by the Corps through the Water Resources Development Act of 1998. This legislative language should direct that an administrative appeal is a final agency action under the Administrative Procedures Act.

Structural Vs. Non-Structural Approaches To Flood Control And Other Suggested National Flood Control Policy Changes

NAFSMA stresses that flooding is a disaster that can be anticipated and protection provided through a combination of structural and non structural alternatives, whichever is identified as being the best project or the National Economic Development benefits (NED) plan. A major factor in deciding to build federally funded flood control projects by the U.S. Army Corps of Engineers requires at least \$1 in benefits to be accrued for \$1 spent. The Nation has always considered the cost of these projects as an investment, not as a liability. We cannot afford not to build these projects.

NAFSMA supports non-structural solutions where it is practical, but it must be recognized that structural solutions will still be necessary in many cases.

Watershed Management

NAFSMA members urge the allocation and appropriation of \$25 million for urban watershed management studies, plus \$100 million to implement and develop watershed management plans. NAFSMA also urges that the Corps take the lead in developing these studies, which should be conducted in cooperation with other Federal and local agencies.

Challenge 21: Riverine Ecosystem Restoration and Flood Hazard Mitigation in Clean Water Action Plan

NAFSMA strongly supports the Corps proposed *Challenge 21* program. As president of NAFSMA, in mid-April I wrote to the Corps expressing this support and

stated, "The NAFSMA Board of Directors strongly supports *Challenge 21* and looks forward to working with you in the months ahead as you move forward on this and other initiatives outlined in the Clean Water Action Plan. As Chief of Engineering for the Louisville and Jefferson County Metropolitan Sewer District, I appreciate the need for a variety of tools to be included in the flood control toolbox. Included should be both structural and non-structural solutions to problems."

NAFSMA urges the Senate to authorize this important program and to provide funding for this critical effort. The Nation's flood control agencies view this program as a valuable tool for their flood control efforts and urge Congress to support this important initiative.

Lands, Easements, Rights of Way, Relocations and Disposal

NAFSMA also recommends that the current Water Resources Development Act be amended to allow for relocations in those cases where a road/bridge will be built within 2 years after completion of an element of the Federal project. The situation that we currently have causes numerous roads/bridges to be designed and even some being delayed from construction until the Federal project (underground/below grade work) is completed. Obviously, if the road existed, then the Federal project would count the crossing as a relocation. NAFSMA is urging that the process be changed to construct the Federal flood control project first, then build the roads. NAFSMA feels that it is a waste of local, State and Federal dollars to cut through a new road with a federally partnered project.

Provision of Operations And Maintenance Manual to the Non-Federal Sponsor

Another Issue related to operations and maintenance of Corps-partnered water resources projects concerns the providing of the Operations and Maintenance manual to the Non-Federal Sponsor. NAFSMA urges the subcommittee to adopt language in WRDA 98 mandating that no structural flood control project, or functional portion thereof, can be turned over to the non-Federal sponsor for operations and maintenance without providing the sponsor first with a completed operations and maintenance manual. Language also needs to be included in WRDA 98 clearly stating that the OMR&R manual is to be developed in conjunction with the non-Federal sponsor.

Donations Of Lands, Easements And Rights Of Way To A Corps-Partnered Flood Control Project

NAFSMA urges the inclusion of language in WRDA 98 to authorize the Corps to negotiate with the non-Federal sponsor and recognize the donation of lands, easements and rights of way as a non-cost item in a flood control project for the purpose of calculating the 5 percent cash contribution by the local sponsor. Currently the local sponsor is required to acquire and pay for the right of way and also make a cash contribution equal to 5 percent of the total cost of the project. Since the total cost of the project includes the rights of way, the sponsor pays for the land rights and makes an additional cash contribution of 5 percent of the cost of the land rights. This change would make the sponsor's cash contribution 5 percent of the construction cost only.

Five-Year Lookback On Credit For Incidental Costs

In addressing incidental costs in determining credit for value of lands, relocations and disposal areas for federally partnered flood control projects, NAFSMA urges that the 5-year lookback on credit for lands, easement, or rights-of way acquired by the non-Federal sponsor be removed.

Obligation of Future Appropriations in Corps-Partnered Structural Flood Control Projects

NAFSMA urges that language addressing the question of State-derived funds vs. local-only funds in Corps-partnered structural flood control projects be addressed in WRDA 98. Although the Corps has included language in the current project cooperation agreement to address the obligation of future appropriations for States, many local governments face the same restrictions concerning future appropriations and NAFSMA urges that language be included in WRDA 98 to mandate that the Corps address this critical local issue as well. NAFSMA staff will be available to work with the committee on language to address these concerns.

In Closing

NAFSMA has developed a good working relationship with the Corps and we look forward to enhancing our relationships with the Corps. NAFSMA believes that the current programs and future programs will not only provide a beneficial impact to the Nation, but as important, a benefit to our members and the citizens they serve.

It is important that appropriate levels of Federal funding be established and maintained to implement the various programs so that these benefits can be realized by all.

STATEMENT OF THE RED RIVER VALLEY ASSOCIATION

The Red River Valley Association is a voluntary group of citizens banded together to advance the economic development and future well-being of the citizens of the four State Red River Basin area in Arkansas, Louisiana, Oklahoma and Texas.

For the past 73 years, the Association has done notable work in the support and advancement of programs to develop the land and water resources of the Valley to the beneficial use of all the people. To this end, the Red River Valley Association offers its full support and assistance to the various Port Authorities, Chambers of Commerce, Economic Development Districts and other local governmental entities in developing the area along the Red River.

The Resolutions contained herein were adopted by the Association during its 73d Annual Meeting in Shreveport, Louisiana on February 19, 1998, and represent the combined concerns of the citizens of the Red River Basin area as they pertain to the goals of the Association, specifically:

- Economic and Community Development
- Flood Control
- Bank Stabilization
- A Clean Water Supply for Residential, Commercial, Industrial and Agriculture Uses
- Hydroelectric Power Generation
- Recreation
- Navigation
- Environmental Balance

The Red River Valley Association is aware of the constraints on the Federal budget, and has kept those restraints in mind as these Resolutions were adopted. Therefore, and because of the far-reaching regional and national benefits addressed by the various projects covered in these Resolutions, we urge the Members of Congress to review the materials contained herein and give serious consideration to funding the projects at the levels requested.

Our organization was founded in 1925 with the express purpose of uniting the citizens of Arkansas, Louisiana, Oklahoma and Texas to develop the land and water resources of the Red River Basin. We are sincerely grateful to you for the past support you have given our various projects. We hope that we can count on you again to authorize our needs that will help us diversify our economy and create jobs so badly needed by our citizens.

Following are our requests which we ask you to consider for inclusion in the 'Water Resource Development Act of 1998'.

1. The Caddo Levee District, Caddo Parish, Louisiana has one section of levee not included in the Federal Levee System. This is the Twelve Mile Bayou Levee which is approximately 26 miles long, map attached as Enclosure 1. We believe this should be incorporated into the Federal system for the following reasons.

a. The waters passing through this bayou are interstate waters, originating from a 2,700 square mile watershed in East Texas.

b. This levee currently meets Federal standards for a 100 year protection; therefore, no Federal funds are required to 'bring it to standards'.

c. Across the bayou, in the northern most reach, is the Black Bayou Levee which is in the Federal system and obviously impacts the flood level on Twelve Mile Bayou.

d. Twelve Mile Bayou protects approximately 50,000 acres of land reaching to the Red River Levees (Federal system) and protects U.S. Highway 71, the main route between Shreveport, LA and Texarkana, AR.

e. At the southern end of the levee, near the city limits of Shreveport, LA, the Twelve Mile Bayou Levee and the Red River Levee are the same levee. This certainly indicates these levees act as a system and should both be included in the Federal system.

For the reasons indicated above this levee should be incorporated into the Federal system. An important factor is that it already meets standards and is maintained to standards so there would be no Federal cost involved with the levee itself. We request you direct that the Twelve Mile Levee in Caddo Parish, Louisiana, a part of the Caddo Levee District be incorporated into the Federal Levee System.

2. The Bossier Levee District, Bossier Parish, Louisiana has a drainage channel issue which should be the responsibility of the Corps of Engineers to maintain. This

is Loggy Bayou at its confluence with the Red River, at river mile 194.1. The channel in question extends approximately 8 miles upstream into Loggy Bayou.

Loggy Bayou is the final and only channel that drains a vast area of Northwest Louisiana and part of Arkansas water into the Red River. The headwaters start in Columbia County, Arkansas and the drainage area includes large parts of Webster, Bienville and Bossier Parishes in Louisiana. There are no other diversions for these waters to the Red River except through Loggy Bayou.

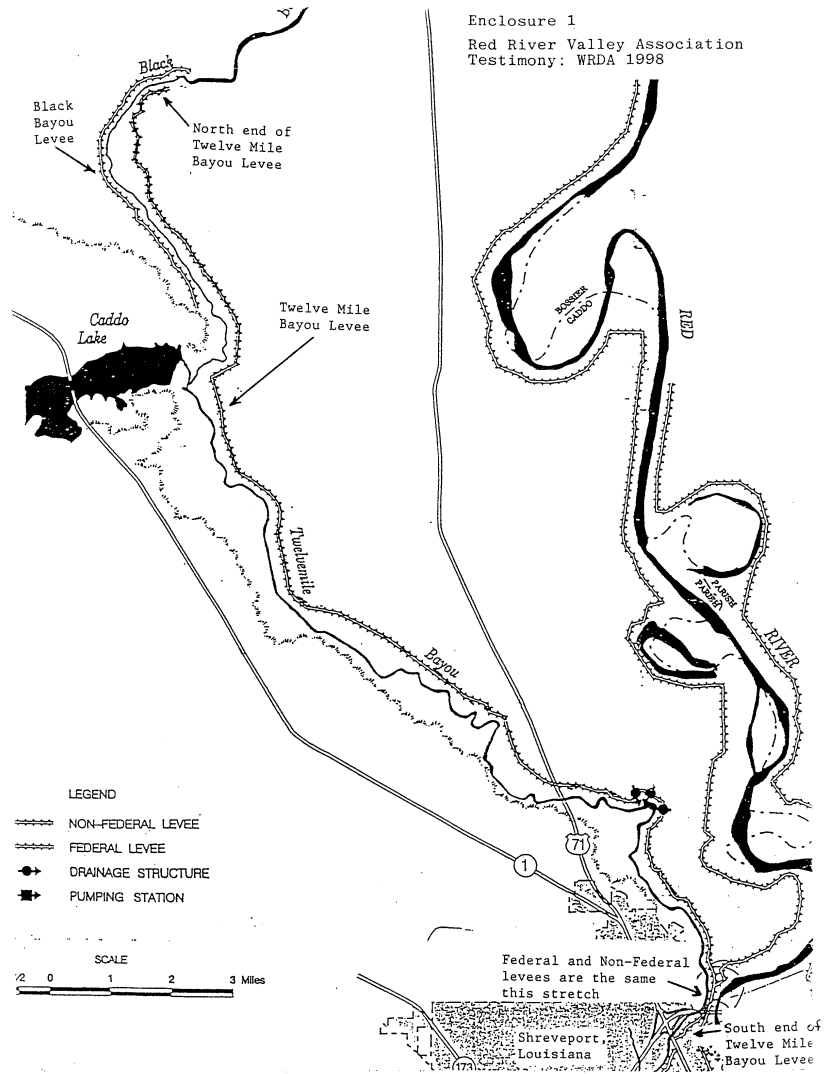
In 1943 the Bossier Levee District agreed to maintain the last 7.8 miles of Loggy Bayou before it enters the Red River. Conditions have changed drastically since 1943, to include: the diversion of Coushatta Bayou into the Loggy Bayou; the channel is now approximately 20 feet deeper due to increased drainage flows and the Red River Waterway Project has pooled the water into this section of Loggy Bayou permanently raising the water level. The Bossier Levee District does not have the equipment, expertise or funding to keep the channel maintained so there is now a real threat for increased flooding upstream. Since there have been considerable changes to the Loggy Bayou Watershed, beyond the control of the Bossier Levee District, and the waters drained are multi-state it is requested that the Corps of Engineers be directed to maintain the channel in Loggy Bayou, under 'Red River Below Denison Dam' authorized by Section 10 of the Flood Control Act of 1996: P.L. 79-526. This should be modified to provide operation and maintenance of Loggy Bayou from mile 0.0 to mile 7.8 between the Red River and Flat River.

3. Bowie County Levee, Texas: This levee was authorized under the Flood Control Act of 1946, as were the adjacent levees in Arkansas. The levees in Arkansas are currently going through a major rehabilitation and the Bowie County Levee is an integral part to the integrity of the whole flood control system in this region of Texas and Arkansas. It is imperative that the Bowie County Levee receive the same rehabilitation, to the same standard as those in Arkansas to maintain this integrity. The enclosed map, enclosure 2, shows the importance of this levee to the whole system. We request the following language be included in WRDA 1998.

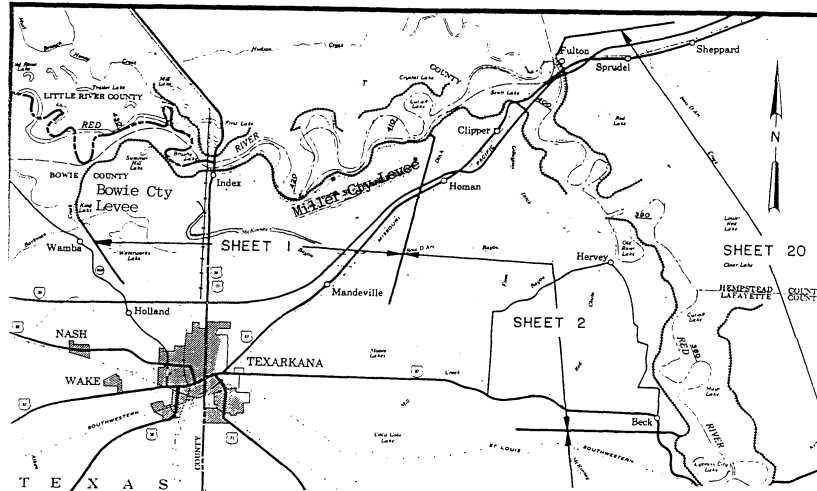
Red River Below Denison Dam, Arkansas, Louisiana and Texas; Bowie County Levee: The Secretary is directed to rehabilitate and construct the authorized project, defined as Alternative B in the Corps of Engineers document entitled Bowie County Local Flood Protection, Red River, Texas, Project Design Memorandum No. 1, Bowie County Levee, as submitted in and dated April 1997. The Secretary is further directed that this project, which was originally authorized by the Flood Control Act of 1946, will be cost shared in accordance with that Act.

Red River Navigation, Southwest Arkansas, Study: The feasibility study was authorized in Section 402 of the "Water Resources Development Act of 1996." This is the extension of an existing Waterway project which is navigable on the lower 235 miles of the Red River. We request the following language be included in WRDA 1998.

Red River Navigation, Southwest Arkansas, Study: Section 402 of the Water Resources Development Act of 1996: P.L. 104-303, (110 stat. 3740) is amended to include: The Secretary shall use the same discount rate for the economic analysis as was used for the authorization of the Red River Waterway; Louisiana, Texas, Arkansas and Oklahoma: House Document 304, 90th Congress, 2d Session, P.L. 90-483, (82 stat. 731).



Enclosure 2
 Red River Valley Association
 Testimony: WRDA 1998



1. The Bowie County Levee goes from King Lake to Index.
2. It physically ties in to Miller County Levee at the median of Highway 71, just north of Index.
3. If the Bowir levee fails the first line of defense is the railroad adjacent to Highway 71. It is elevated but has drainage structures through it and is not constructed to levee standards. McKinney Bayou also has large culverts under the Railroad embankment. Without the Bowie County Levee flooding would occur behind the Miller County levees in Arkansas, rendering them useless.

CORPS OF ENGINEERS

Enclosure 2
Red River Valley Association
Testimony: WRDA 98

LEGEND

- Improvements completed
- Under Construction
- Authorized
- Levee
- Cutoff
- Bank protection
- Boundary of Levee Districts
- Levee not in project
- Miles above mouth of Old River (1967)

LOWER MISSISSIPPI VALLEY DIVISION WORK
RIVER AND HARBOR IMPROVEMENTS
RED RIVER
BELOW DENISON DAM
LOUISIANA, ARKANSAS, OKLAHOMA AND TEXAS
LEVEES AND BANK STABILIZATION

SCALES AS SHOWN
U.S. ARMY ENGINEER DISTRICT, VICKSBURG
CORPS OF ENGINEERS
Revised 30 September 1993

