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ENERGY AND WATER DEVELOPMENT APPROPRIATIONS FOR FISCAL YEAR 2004

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

NONDEPARTMENTAL WITNESSES

[CLERK'S NOTE.—At the direction of the subcommittee chairman, the following statements received by the subcommittee are made part of the hearing record on the Fiscal Year 2004 Energy and Water Development Appropriations Act.]

DEPARTMENT OF DEFENSE—CIVIL

DEPARTMENT OF THE ARMY—CIVIL

CORPS OF ENGINEERS

PREPARED STATEMENT OF ORANGE COUNTY, CALIFORNIA AND THE ORANGE COUNTY FLOOD CONTROL DISTRICT

Mr. Chairman and Members: On behalf of Orange County, California, and the Orange County Flood Control District, I respectfully request your support for fiscal year 2004 Federal appropriations to fund the following U.S. Army Corps of Engineers projects:

Santa Ana River Mainstem Project (including Prado Dam)—$67,864,000

We especially urge your support of the $67.8 million for the Santa Ana River Mainstem Project. This will allow the Corps to continue construction on Prado Dam, which began construction in fiscal year 2003. Since fiscal year 1990, the Subcommittee on Energy and Water Development has consistently provided the funds necessary to maintain the planned schedule of construction for the Santa Ana River Mainstem Project. As a result, the Seven Oaks Dam was completed in 1999, the Lower Santa Ana River is about 90 percent complete, the Oak Street Drain is complete, and work has commenced on the San Timoteo feature. The urgency to complete all features of the project has been highlighted by the flooding that has occurred throughout California during the past several years and, in particular, by the damage associated with the El Niño condition in 1997 and 1998. As the Corps of Engineers has reported on several occasions, destruction from a design storm on the Santa Ana River will cause damages exceeding $15 billion and the loss of thousands of lives. The Orange County Flood Control District requests continued support for the timely implementation of the Santa Ana River Mainstem Project, including Prado Dam, by including an appropriation of $67.8 million for fiscal year 2004.

Upper Newport Bay (Dredging)—$5,800,000

The construction dredging and restoration of Upper Newport Bay is another high priority project for Orange County. The restoration of Upper Newport Bay will ensure the preservation of one of California's most precious remaining estuaries along the coast. We urge your support for this very important and significant project.

Westminster/East Garden Grove, California—$300,000

Watershed restoration and flood control feasibility study on East Garden Grove Wintersburg Channel.

Coyote Creek, Carbon Canyon Watershed in Orange County—$600,000

Watershed feasibility study for tributaries in western Orange County that drain into Coyote Creek, Carbon Canyon, and the San Gabriel River.

Newport Bay/San Diego Creek Watershed—$186,000

Continuation of watershed ecosystem restoration study.

Orange County Beach Shoreline—$600,000

This is a feasibility study for shore protection, watershed, and water quality effort along the Orange County coast.

Special Area Management Plan (San Diego Creek SAMP)—$680,000

This is part of a cooperative effort between private property owners and government to identify and protect critical wetland habitat in south Orange County ahead of development.

San Juan Creek, South Orange County—$300,000

Continuation of watershed feasibility study for ecosystem restoration and flood control.

Aliso Creek Mainstem—$618,000

Continuation of watershed feasibility study for ecosystem restoration.

We thank you for the opportunity to address the Subcommittee and for your past record of support for projects that are so important to Orange County.

PREPARED STATEMENT OF DINAMO, THE ASSOCIATION FOR THE DEVELOPMENT OF INLAND NAVIGATION IN AMERICA'S OHIO VALLEY

Mr. Chairman and Members of the Subcommittee: I am Barry Palmer, Executive Director of DINAMO, The Association for the Development of Inland Navigation in America's Ohio Valley. DINAMO is a multi-state, membership based association of business and industry, labor, and State government leaders from throughout the Ohio Valley, whose singular purpose is to expedite the modernization of the lock and dam infrastructure on the Ohio River Navigation System. Largely through the leadership of this subcommittee and the professional efforts of the U.S. Army Corps of Engineers, we in the Ohio Valley are beginning to see the results of 22 years of continuous hard work in improving our river infrastructure.

Lock and dam modernization at Robert C. Byrd Locks and Dam, Grays Landing Locks and Dam, Point Marion Lock, and Winfield Locks are largely complete. These projects were authorized for construction in the Water Resources Development Act of 1986. The immediate problems really are focused on completing in a timely manner lock and dam modernization projects authorized by the Congress in subsequent water resources development acts. Substantial problems remain for reliable and efficient funding of improvements at the Olmsted Locks and Dams, Ohio River, IL/KY; Lower Monongahela River Locks and Dams 2, 3 & 4, PA; McAlpine Locks and Dam, Ohio River, IN/KY; Marmet Lock, Kanawha River, WV; and for Kentucky Lock, Tennessee River, KY. The construction schedules for all of these projects have slipped from 3 to 6 years each, and we are requesting funding for these construction projects at an "efficient construction rate." This term means that these projects can be operational by 2010 or earlier, if funded at or near the full capability of the U.S. Army Corps of Engineers. Additional funding is also needed to complete pre-construction engineering and design (PED) for Greenup Locks and Dam, Ohio River, KY/OH and for John T. Myers Locks and Dam, Ohio River, KY/IN. The President's Fiscal Year 2004 Budget contains no monies for Pre-Construction, Engineering and Design for the John T. Myers Lock Extension project, although the project was authorized by the Water Resources Development Act of 2000 and has received regularly scheduled funding for planning and PED for many, many years. Additionally this Committee provided $800,000 last year for a planning start at Emsworth, Dashields and Montgomery Locks and Dams, Ohio River, PA. Following is a listing of the projects and an efficient funding level determined by the U.S. Army Corps of Engineers to advance construction projects for completion by 2010 or earlier and to advance other projects through planning, construction, engineering and design process:

Recommendations for Fiscal Year 2004

For the Robert C. Byrd Locks and Dam modification project, formerly the Gallipolis Locks and Dam on the Ohio River, OH/WV, about $2,700,000 to continue major rehabilitation of the dam. Fiscal Year 2004 Budget Request $2,500,000.

For the Winfield Lock Replacement on the Kanawha River, WV, $2,000,000 for continued construction and relocations related to environmental mitigation. Fiscal Year 2004 Budget Request $2,000,000.

For the Olmsted Locks and Dam, replacing Locks and Dams 52 and 53 on the Lower Ohio River, IL/KY, $73,000,000 to award the contract to initiate construction of the new gated dam. Fiscal Year 2004 Budget Request $73,000,000.

For the Monongahela River Locks and Dams 2, 3 & 4, PA, $61,00,000, to complete construction of the new Braddock Dam, continue any ongoing contracts at Charleroi which were able to be awarded in fiscal year 2003 and award a major contract for the construction of the new Charleroi Locks. In addition, critical Pool 2 relocations and Pool 3 dredging should resume in fiscal year 2004 in order to support timely completion of the project. Initiating construction work at Charleroi in fiscal year 2003 is critical to completing the project by 2010. Fiscal Year 2004 Budget Request $35,000,000.

For the McAlpine Lock Project on the Ohio River, IN/KY, $70,000,000 to construction of the new 110′ × 1,200′ lock addition. Fiscal Year 2004 Budget Request $26,100,000.

For the Marmet Lock Replacement on the Kanawha River, WV, $69,200,000 to continue construction of the new 110′ × 800′ project. Fiscal Year 2004 Budget Request $52,154,000.

For the Kentucky Lock Addition on the Tennessee River, KY, $53,400,000 to continue construction of the new highway and bridge work and to begin construction of the upstream cofferdam. Fiscal Year 2004 Budget Request $24,866,000.

For Pre-Construction Engineering and Design for the John T. Myers Locks and Dam, Ohio River, IN/KY, $2,500,000. A new construction start for this project will be required soon, since this project was authorized for construction in the Water Resources Development Act of 2000. Fiscal Year 2004 Budget Request $0.00.

For Pre-Construction Engineering and Design for the Greenup Locks and Dam, Ohio River, OH/KY, $5,800,000. A new construction start for this project will be required soon, since this project was authorized for construction in the Water Resources Development Act of 2000. Fiscal Year 2004 Budget Request $2,895,000.

For the Ohio River Mainstem Study, which will identify a comprehensive investment plan for the next 50 years and also assess system economic and environmental impacts associated with the plan, $1,500,000 in fiscal year 2003. This level of funding is needed to complete a preliminary draft report including a System Investment Plan and Cumulative Effects Assessment. Fiscal Year 2004 Budget Request $1,350,000.

For the Emsworth, Dashields and Montgomery Locks and Dams, Ohio River, PA, $1,500,000. Fiscal Year 2004 Budget Request $0.00.

All lock and dam modernization projects should be completed in a timely and orderly manner. It is important to note that monies to pay for lock and dam modernization are being generated by 20 cents per gallon diesel fuel tax by towboats operating on America's inland navigation system. These tax revenues are gathering in the Inland Waterways Trust Fund, in order to finance 50 percent of the costs of these project costs. There is about $400 million in the Inland Waterways Trust Fund. The real challenge is not the private sector contribution to completing these lock and dam construction projects in a timely manner, but rather it is the commitment of the Federal Government to matching its share.

Additionally DINAMO opposes expansion of the authority of the Inland Waterways Trust Fund to finance a portion of Operation and Maintenance expenditures on America's inland navigation system. The Trust Fund's balance and all future revenues are already spoken for. The unspent balance in the Trust Fund and projected fuel tax revenues for the foreseeable future are already committed to the construction or major rehabilitation of Congressionally approved projects, many of which are under construction. All of the current Trust Fund balance and all of the 20-cents-per-gallon fuel taxes paid by transportation users for the next 8 years are needed to complete just six of the priority projects currently under construction. To spend these funds for O&M will ensure that the construction or major rehabilitation of these and other important ongoing and future projects will never be completed or built—unless there is a future tax increase to replenish a bankrupt Trust Fund! The proposal violates the agreements underlying the Water Resources Development Act of 1098, which affirmed continued responsibility for inland waterways Operations and Maintenance in return for waterway users assuming the obligation for financing 50 percent of future construction and major rehabilitation costs. Congress must ensure that the balance and all future Trust Fund revenues are spent on the purposes for which they were collected—to modernize the inland waterway system and ensure its future.

The construction schedules for Ohio River Navigation System projects have slipped from 3 to 6 years, depending on the project. Delaying the construction of these vitally needed infrastructure investments is a terribly inefficient practice. Inefficient construction schedules cost people a lot of money. A February 2002 study by the Institute for Water Resources concluded that $1.97 billion of cumulative benefits (transportation savings) for Olmsted, Lower Monongahela River 2, 3 & 4, McAlpine, Marmet, and Kentucky lock and dam modernization projects have been lost forever. The benefits foregone represent the cumulative annual loss of transportation cost savings associated with postponing the completion of these projects from their "optimum," or "efficient," schedule. In addition, this study concludes that $672 million of future benefits are at risk but will be foregone (based on fiscal year 2002 schedules) if funding is not provided to accelerate design and construction activities in accordance with "efficient" schedules. In February of this year (2003) the Institute for Water Resources updated this information: because of additional construction schedule slippage, projects have been further delayed and additional benefits have also been washed down the river. (This chart, "Inland Waterway New Construction Projects, Benefits Foregone Attributable to Stretched Project Schedules in Fiscal Year 2003 Budget Request," is attached to this testimony.)

Expenditures for lock and dam modernization are an investment in the physical infrastructure of this Nation. The President's $4.194 billion Corps of Engineers Civil Works Budget for fiscal year 2004 will fall at least $800 million short of what will be needed to meet the Nation's water resources needs. Mr. Chairman, we have great confidence in the Corps of Engineers and urge your support for a funding level more in line with the real water resources development needs of the Nation. For lock and dam modernization on America's inland navigation system, targeted construction funding ought to be at a level of about $300 million annually, with half coming from the Inland Waterways Trust Fund and half coming from the General Treasury. Last year Congress provided about $4.63 billion for the Corps of Engineers program and more than $250 million for lock and dam modernization on America's inland navigation system. It is reasonable that funding for the Corps program should be increased to levels closer to $5 billion and about $300 million for lock and dam modernization on our Nation's river system, in order to complete the major lock and dam modernization projects by the end of the decade or earlier.

Following is our analysis of the partial consequences of inadequate funding of Ohio River Navigation System infrastructure improvements:

Olmsted Locks and Dam

Ground was broken on Olmsted Locks and Dam in 1996. Locks and Dam 52 and 53 will be replaced with this single facility at mile 964.4 of the Ohio River. Olmsted will feature twin 110′ × 1,200′ lock chambers and a submersible dam. During high water conditions, which should occur about 60 percent of each year, tows will pass over the dam using the navigable pass portion. The total cost is approximately $1 billion, with a benefit/cost ratio of 3.5 to 1. The project is scheduled for completion in 2011. Congress appropriated $65 million for construction work in fiscal year 2003.

Olmsted has already slipped its completion date by 5 years, and more than $1.84 billion in transportation benefits have already been washed down the river (non-recoverable) because of construction schedule slippage. The President's Fiscal Year 2004 Civil Works Budget has funded the project on an Efficient Funding Schedule, and the new facility could be operational by 2011 if this level of funding is maintained. This improved construction scenario (when compared to fiscal year 2003 construction schedule projections) could prevent the loss of more than $2.63 billion in transportation benefits.

According to the Corps of Engineers Waterborne Commerce Statistics for 2001, more than 82 million tons of commodities were shipped past the point where Olmsted is being built. These shipments had a combined value of $18.3 billion. The leading commodity shipped past the Olmsted Lock site was coal, which made up 24 percent of the total tonnage. Limestone, iron ore and grains such as corn and soybeans were other significant commodities making up this traffic.

Lower Monongahela River Locks and Dams 2, 3 & 4

Locks and Dams 2, 3 and 4 are the first three navigation projects on the Monongahela River upstream of Pittsburgh. Lock and Dam 2 is located at Monongahela River mile 11.2, Lock and Dam 3 is located at mile 23.8, and Lock and Dam 4 is at mile 41.5. Lock and Dam 2 has a main lock chamber measuring 110′ × 720′ feet and an auxiliary lock that is 56′ × 360′. The other two projects have main lock chambers that are 56′ × 720′ and auxiliary lock chambers that are 56′ × 360′. Lock and Dam 2 was originally built in 1905, with new locks completed in

the early 1950's. Lock and Dam 3 was built in 1907, and Lock and Dam 4 was completed in 1932.

The dam at L/D 2 is being replaced by a gated dam being built using an innovative in-the-wet method of fabricating segments off-site and floating them in place, and the project will be renamed Braddock Locks and Dam. L/D 3 will be removed. Twin 84′ × 720′ locks will be built at L/D 4 (to be renamed Charleroi Locks and Dam). Construction on this two-for-three replacement project began in 1994 and is scheduled for completion in 2010, at a total cost of $750 million. The benefit/cost ratio is 2.1 to 1. In fiscal year 2003, $42 million was appropriated for this work. Continued funding at a rate of $35 million (Fiscal Year 2004 Budget) annually could delay completion an additional 9 years, possibly by 2016 and the loss of more than $267.3 million in transportation benefits.

According to the Corps of Engineers Waterborne Commerce Statistics for 2001, almost 22.2 million tons of commodities moved through any or all of the three locks. Of the 19.1 million tons of coal transiting these locks, over 7.2 million tons were destined for 23 power plants in 7 States. The value of the 22.2 million tons was nearly $1.6 billion. Nearly 10 million tons moved through all three locks.

McAlpine Locks and Dam

McAlpine Locks and Dam is located in downtown Louisville, Kentucky. The dam is at mile 604.4 of the Ohio River and the locks are in the Louisville and Portland Canal on the Kentucky side of the river. The 56′ × 600′ auxiliary lock was completed in 1921 and the 110′ × 1,200′ main chamber was opened in 1961. There is also an inactive 56′ × 360′ lock chamber. In 1960, the project was renamed from Lock and Dam 41 in honor of a former Louisville District Engineer.

Construction began at McAlpine in 1999 on a new 110′ × 1,200′ lock, which will replace the active 110′ × 600′ auxiliary and an inactive auxiliary lock. The project is scheduled for completion in 2008 at a total cost of $278 million, with a benefit/cost ratio of 1.8 to 1. Congress appropriated $21 million for work in fiscal year 2003. McAlpine has already slipped its completion date by 6 years, and over $245 million in transportation benefits have been washed down the river (non-recoverable) because of construction schedule slippage. Failure to fund the project on an Efficient Funding Schedule in fiscal year 2004 (at $70 million) and each future year could delay completion by as much as an additional three years, possibly to 2011. That scenario would wash approximately another $124.86 million in benefits down the river.

According to the Corps of Engineers Waterborne Commerce Statistics for 2001, more than 55 million tons of commodities were shipped through McAlpine Locks. These shipments had a combined value of nearly $11.7 billion. Of the 20 million tons of coal moving through McAlpine in 2001, over 13 million tons went to more than 30 power plants in 8 States. McAlpine Locks was important to the steel industry, as it passed 5.5 million tons of iron ore, pig iron and other raw iron and 2.5 million tons of iron and steel products.

Marmet Lock and Dam

Marmet Locks and Dam is located at mile 67.7 of the Kanawha River. The locks were opened in 1933 and the dam was completed in 1934. The two lock chambers measure 360′ × 56′. Located about 9 miles upstream of Charleston West Virginia, the project is approximately 27 miles from the head of navigation.

An improvement to Marmet Locks was authorized in 1996. The proposed project is a new 800′ × 110′ lock chamber to go with the existing pair of 360′ × 54′ chambers. Property acquisition and design work continue and construction is underway. The total cost of the project is $313 million, and Congress appropriated $50 million for work in fiscal year 2003. The benefit/cost ratio is 2.9 to 1. Average annual benefits of this new project are about $55.9 million a year. Marmet has already slipped completion date by 3 years, and over $117 million in transportation benefits have been washed down the river (non-recoverable) because of construction schedule slippage.

According to the Corps of Engineers Waterborne Commerce Statistics for 2001, just over 17 million tons of commodities were shipped through Marmet Locks. These shipments had a combined value of $802 million. Of the 16.1 million tons of coal moving through Marmet, 11.5 million tons were destined for 30 power plants in 7 States, and another 1.5 million tons went to steel plants.

Kentucky Locks and Dam

Kentucky and Barkley Locks work as a system for passing barge traffic even though they are located on different rivers. Kentucky Lock and Dam is located on the Tennessee River 22.4 miles upstream of the junction with the Ohio River. Barkley Lock and Dam is located on the Cumberland River 30.6 miles upstream of the

Ohio. The two rivers are connected by the Barkley Canal, which intersects the Tennessee River at mile 25.3 and the Cumberland River at mile 32.8. Kentucky's lock chamber is 110′ × 600′ and has been in operation since 1944. Barkley was completed in 1966 and has a 110′ × 800′ lock chamber.

Ground was broken in October of 1999 on a new 110′ × 1,200′ lock at Kentucky Lock. Completion is scheduled for 2010; the total cost will be approximately $533 million, with a benefit/cost ratio of 2.4 to 1. The existing 110′ × 600′ lock will continue to be used as an auxiliary. Kentucky Lock and Dam's current single lock chamber is insufficient to handle increasing tonnage. The lack of an auxiliary chamber forces tows to use Barkley Lock during periods of extended delays and closures. When Kentucky Lock is at 90 percent capacity, tows face average delays of 5 to 6 hours. $30 million was appropriated for work on Kentucky Lock's new chamber in fiscal year 2003. Kentucky Lock has already slipped completion date by 2 years, and over $74 million in transportation benefits have been washed down the river (nonrecoverable) because of construction schedule slippage. The President's fiscal year 2004 Civil Works Budget ($25 million) will delay completion of the project by as much as 10 years and approximately $551 million in transportation benefits will be washed down the river.

In conclusion, Mr. Chairman, we thank you for your interest and support of lock and dam modernization on the Ohio River Navigation System. It was that the rivers played a tremendous role in the defense of our Nation. Today our Nation's security is more and more determined by our economic muscle, our ability to compete for more and news customers in different parts of the world. These locks and dams are at the core of our basic infrastructure that enables Americans to compete globally for its basic manufacturing products—iron and steel, chemicals, petroleum products, aluminum, etc. We urge your support of efficient funding of these vitally needed projects that last fifty or more years and provide many dollars in return for the investment sunk.

We thank you for the opportunity to present this request and our thoughts on these matters.

TABLE 1.—INLAND WATERWAY NEW CONSTRUCTION PROJECTS—BENEFITS FOREGONE ATTRIBUTABLE TO STRETCHED PROJECT SCHEDULES IN FISCAL YEAR 2003 BUDGET REQUEST

Project	Initial Optimum Schedule		Current Optimum Schedule		Fiscal Year 2003 Budget Schedule		Average Annual Benefits [1]	Schedule Change in Years vs PDR	Est. Benefits Foregone vs Initial Opt [2]	Schedule Change in Years vs Current Opt	Est. Benefits Foregone vs Current Opt	Est. Benefits Foregone Not Recoverable	Est. Inflation @ 2.7%
	($ million)	Compl	($ million)	Compl	($ million)	Compl	($ million)		($ million)		($ million)	($ million)	($ million)
Lower Mon 2–4	$645.0	2004	$750.0	2009	$750.0	2010	$29.17	6	$134.62	1	$19.24	$115.38	$1.27
London Rehab	18.7	2003	22.2	2003	22.2	2004	1.34	1	1.26	1	1.26	.....	0.32
Marmet	268.0	2007	313.0	2009	313.0	2010	55.90	3	117.53	1	36.87	80.66	0.04
Olmsted	1,020.0	2006	1,060.0	2010	1,052.0	2011	526.25	5	1,848.55	1	327.11	1,521.44	0.31
McAlpine	255.0	2002	278.0	2007	278.0	2008	41.62	6	245.36	1	29.12	216.24	1.06
Winfield [3]	221.6	2002	227.5	2002	235.5	2003	56.11	1	.....	1	.....	.....	0.13
R.C. Byrd [3]	373.0	1999	373.0	2002	379.0	2003	161.20	4	.....	1	.....	.....	0.08
Kentucky Lock	481.5	2008	533.0	2009	533.0	2010	55.10	2	74.91	1	36.34	38.57	0.03
Inner Harbor [4]	575.0	2009	576.4	2012	576.4	2014	109.70	5	322.37	2	117.58	204.78	3.75
Greenup [5]	245.0	2008	240.7	2009	245.0	2020	26.50	12	163.92	11	163.92	.....	81.96
Myers [5]	182.1	2008	225.0	2010	182.1	2020	8.60	12	53.20	10	53.20	.....	68.69
Chickamauga [6]	239.4	2010	239.4	2010	239.4	2015	1.96	5	5.43	.....	5.43	.....	34.11
TOTAL	.....	.....	.....	.....	.....	.....	.....	57	2,967.14	31	790.07	2,177.07	157.66
Fiscal Year 2002 Analysis	.....	.....	.....	.....	.....	.....	.....	29	2,621.82	35	1,149.35	1,472.48	172.95
Change from 2002	.....	.....	.....	.....	.....	.....	.....	.....	345.32	.....	(359.28)	704.59	(15.29)

[1] Average Annual Benefits based on Fiscal Year 2002 Budget Justification of Expense, February 2002.
[2] Benefits foregone estimated from net present value of benefits in each year of delay, based on 50–year project life, and adjusted to fiscal year 2002 base year. Discount rate adjusted to 6.125 percent.
[3] Locks are completed, dam construction remains.
[4] Inner Harbor "Initial Optimum" reflects Fiscal Year 2000 Optimum Schedule.
[5] Greenup and Myers "Initial Optimum" reflects Fiscal Year 2002 Optimum Schedule.
[6] Chickamauga not included in previous fiscal year 2002 analysis.

PREPARED STATEMENT OF THE ASSOCIATION OF STATE DAM SAFETY OFFICIALS

Dear Chairman Domenici and Members of the Subcommittee: The Association of State Dam Safety Officials is pleased to offer this testimony on the President's proposed budget for the U.S. Army Corps of Engineers (USACOE) Fiscal Year 2004. The Association's testimony includes issues related to the safety and security of the dams owned or operated by the USACOE and in support of the National Inventory of Dams (NID) authorized by the Dam Safety and Security Act of 2002.

The Association of State Dam Safety Officials is a national non-profit organization of more than 2,000 State, Federal and local dam safety professionals and private sector individuals dedicated to improving dam safety through research, education and communications. Our goal simply is to save lives, prevent damage to property and to maintain the benefits of dams by preventing dam failures. Several dramatic dam failures in the United States called attention to the catastrophic consequences of failures. The failure of the federally-owned Teton Dam in 1976 caused 14 deaths and over $1 billion in damages, and is a constant reminder of the potential consequences associated with dams and the obligations to assure that dams are properly constructed, operated and maintained.

NATIONAL INVENTORY OF DAMS

The National Inventory of Dams is a computer database, maintained by the USACOE, that houses vital information of Federal and non-Federal dams across the United States. The database tracks information about the dam's location, size, use, type, proximity to nearest town, hazard classification, age, height and many other technical data fields. The database can be used for States or Federal agencies to access comprehensive information for planning, security alerts or to use within a Graphic Information System (GIS) vital in tracking lifeline systems and responding to emergency events through using the geographic and mapping abilities along with the engineering information within the NID database.

The NID can be used by policy makers as a tool when evaluating national or local dam safety issues. For example, it is extremely useful in establishing the average age of the dams in the United States, or identifying the number and location of a particular type of dam construction (i.e. the number and location of "thin arch" dams greater than 100 feet in height). In addition, the Federal Emergency Agency uses the State dam data to establish the amount of State grant assistance funds, in accordance with the National Dam Safety Program. It is essential that this inventory be accurate and current.

There are over 78,000 dams on the National Inventory of Dams in the country. To have access to this critical data when needed and to be able to track trends in assessing dam safety improvements, it is essential that this data be current and accurate. The NID can meet this need, but it is only as accurate as the last update. The database must be continually updated, the dam information is constantly changing (i.e. new ownership, major repairs, removal of dams, increasing the height and storage, additional downstream development or changes to the dam's hazard classification). This data is now even more important as the intelligence community and Federal law enforcement have identified dams as a specific target of potential terrorists attacks. The data can also be of tremendous benefit to Federal agencies such as FEMA, NWS, USGS and the new Department of Homeland Security for locating large dams, for watershed planning, flood control planning or emergency response to failures or extreme storm events.

The USACOE has done an excellent job in developing and maintaining the NID. Continuing updates and improvements to this database resource should be a high priority. Federal agencies that own dams as well as State dam safety programs provide updated information and corrections to the data fields, which provides for accurate and current data.

The Association respectfully requests that the subcommittee recognize the importance of this national dam database and increase the appropriation amount from the proposed funding level in the President's budget of $300,000 to the full authorized funding amount of $500,000.

DAM SAFETY, SECURITY, AND OPERATION AND MAINTENANCE

The USACOE is recognized as a national leader in dam construction and dam safety. The USACOE currently owns or operates 609 dams in the United States, and these dams, like other critical components of the national infrastructure are aging and the require vigilant inspection as well as routine maintenance. In addition, the security of our Nation's infrastructure is a major concern. Dams, especially the large Federally-owned dams are a potential target for terrorists attacks.

The USACOE dams are typically very large, provide flood protection, water supply, hydropower, recreation and many are critical to the waterway navigation on the Nation's major rivers. The consequences of a failure or misoperation of one of these dams can cause enormous loss of life and property damage, as well as the loss of the benefits provided by the dam. Therefore, the Association strongly supports appropriations necessary to make needed repairs, to conduct security assessments and improvements wherever necessary. The Association believes that operation and maintenance are critical to the continued safe performance of the dams. Too often deferred maintenance causes a small problem to become larger and more costly; and if left unattended, may cause the dam to become more susceptible to failure.

The Association respectfully asks that the subcommittee recognize that inspections, safety repairs, security and routine maintenance are all essential to assure the safety and the continuing benefits of USACOE dams.

The Association specifically requests:

—Increase in appropriations for the USACOE Dam Safety Program non-project management funds to $250,000 from the proposed $45,000;

—Increase in appropriations for the USACOE Dam Security Program non-project management funds to $250,000 from the proposed $30,000 to include assistance to the State dam safety programs in conducting security vulnerability assessments and for training in the dam security assessment tools such as RAM–D;

—Increase in the USACOE "Planning Assistance to States Program" Line A.1e.(1) from $6,000,000 to $10,000,000 to provide much needed assistance to the States to cost-share dambreak modeling, developing emergency evacuation plans and to jointly conduct security vulnerability assessments;

—Appropriations of $40,000,000 for needed dam safety repairs to the Canton Dam in Oklahoma, the Tuttle Creek Dam in Kansas, the Clearwater Dam in Missouri and to complete the safety repairs to the Waterbury Dam in Vermont.

Finally, while the security of the USACOE dams is currently a major priority, the continued safety, repair and maintenance of the USCOE dams should not be diminished. Improved security on an unsafe dam may deter an attack, but it still leaves the lives and property downstream at an unnecessary risk. The Association also respectfully requests that the fiscal year 2004 funding for Line B.6 Dam Safety and Seepage/Stability Correction Program be increased to $15,000,000 from the proposed $8,000,000; and that the Operation and Maintenance budget be increased from the proposed $1,939,000,000 to $2,000,000,000 for fiscal year 2004 with the additional funds dedicated to dam safety efforts not currently funded in the budget.

Mr. Chairman and members of the Subcommittee, thank you for this opportunity to provide this testimony in support of safe dams. We look forward to working with the Subcommittee and staff on this important national issue.

PREPARED STATEMENT OF VOLUSIA COUNTY, FLORIDA

On behalf of our citizens and fishermen, Volusia County, Florida requests that the Energy & Water Subcommittee appropriate:

—$3,000,000 in fiscal year 2004 to the U.S. Army Corps of Engineers' (Corps) Construction account to fund a 1,000 foot seaward extension of the South Jetty of the Ponce DeLeon Inlet. The Committee provided $1 million for construction of this project in fiscal year 2003. The South Jetty seaward extension is essential for safe inlet navigation and protection of the Inlet channel and the North Jetty landward extension funded in fiscal years 1999, 2000, and 2002.

—$3,000,000 in fiscal year 2004 to the Corps' Operations and Maintenance account to fund the removal of 300,000 cubic yards of sand from the North Cut of the Ponce DeLeon Inlet to provide for safe navigation until the South Jetty construction is complete.

A more detailed case history and description of the situation and projects follow below.

Ponce DeLeon Inlet is located on the east coast of Florida, about 10 miles south of the City of Daytona Beach in Volusia County. The Inlet is a natural harbor connecting the Atlantic Ocean with the Halifax River and Indian Rivers and the Atlantic Intra-coastal Waterway (AICW). Ponce DeLeon Inlet provides the sole ocean access to all of Volusia County and is the only stabilized inlet on the east coast of Florida between St. Augustine and Cape Canaveral, a distance of 112 miles. Fishing parties and shrimp and commercial fisherman bound for New Smyrna Beach or Daytona Beach use the Inlet, as well as others entering for anchorage. Nearby fisheries enhanced by the County's artificial reef program attract both commercial and sport fisherman. Head boat operators also provide trips to view marine life and space shuttle launches from Cape Canaveral. In addition, U.S. Coast Guard Lifeboat

Station Ponce is located immediately inside Ponce de Leon Inlet and provides navigation safety and security for boaters, fisherman, divers and sailors from the entire east central Florida region.

Unfortunately, the Inlet is highly unstable and, despite numerous navigation projects, continues to threaten safe passage for the charter boat operators and commercial fisherman who rely on the access it provides for their livelihood. Recreational boaters and Coast Guard operators are also at risk passing through this unstable inlet. The shoaling of the channels in the Inlet so restricts dependable navigation that the Coast Guard no longer marks the north channel in order to discourage its use. The Coast Guard continues to move the south and entrance channel markers and provides warnings that local knowledge and extreme caution must be used in navigating the inlet. More seriously, the Coast Guard search and rescue data for fiscal years 1981–1995 show that 20 deaths have resulted from vessels capsizing in the Inlet, the direct result of the Inlet's instability. One hundred forty-seven vessels capsized and 496 vessels ran aground in the Inlet during the same period.

The Federal interest in navigation through the Ponce DeLeon Inlet dates back to 1884 and continues to the present. The existing navigation project was authorized by the Rivers and Harbors Act of 1965. The construction authorized by that Act, including ocean jetties on the north and south sides of the Inlet, was completed in July 1972. It became evident soon after completion of the authorized project that the project did not bring stability to the Inlet. A strong northeaster in February 1973 created a breach between the western end of the North Jetty and the sand spit the Jetty was connected to inside the Inlet. The breach allowed schoaling to occur that was serious enough to close boat yards and require almost $2 million worth of repairs, including extending the western end of the North Jetty.

Under the existing maintenance agreement entered into upon completion of the construction, the Corps periodically performs maintenance on the Inlet. Maintenance projects have included several dredging efforts, adding stone sections to the south side of the North Jetty, extending the westward end of the North Jetty for the second time, and closing the North Jetty weir. Prior to the North Jetty project discussed below, the Corps' last maintenance was dredging, completed on the entrance channel in January 1990.

In fiscal year 1998, the Corps received a $3,500,000 appropriation for emergency maintenance on the North Jetty. Migration of the entrance channel undermined the North Jetty, seriously threatening its structural integrity. The fiscal year 1998 funds were used to construct a granite rock scour apron for the 500 to 600 feet of where the Jetty was undermined.

In fiscal year 1999, the Corps received $4,034,000 from the Operations and Maintenance account to extend the North Jetty of the Inlet landward by 800 feet. This maintenance project was completed in July 2002 to prevent the erosion that will cause outflanking of the North Jetty. Continued outflanking of the west end of the North Jetty could create a new inlet for the Halifax and Indian Rivers resulting in major changes to the Ponce DeLeon Inlet. The resultant shoaling of both the north and south channels, as well as changes to the entrance channel, would make passage through the inlet extremely dangerous and unpredictable.

In fiscal year 2000, the Corps received $7,696,000 in their Operations and Maintenance account for use in the Ponce DeLeon Inlet. This appropriation provided funding to continue the North Jetty project, funding for surveys designed to determine the scope of a new maintenance contract for the Ponce De Leon Inlet, and funding for a dredging project to address a minor maintenance issue under the existing maintenance contract.

In fiscal year 2001, the Corps received $46,000 in their Operations and Maintenance account for standard maintenance of the Ponce DeLeon Inlet.

In fiscal year 2002, Congress appropriated $2.032 million to the Corps' Operations and Maintenance account for completion of the North Jetty construction. The Corps completed construction of this project in July 2002.

In fiscal year 2003, Congress provided $1 million in the Corps' Construction account for commencement of the South Jetty oceanward extension, as authorized by WRDA 1999.

For fiscal year 2004, Volusia County requests that the Corps receive $3 million for the balance of the Federal share of construction funds for the South Jetty oceanward extension. The Corps anticipates that the construction of the Jetty extensions will help stabilize the Inlet and reduce future maintenance costs. In addition to creating a safer navigation environment, completion of the North and South Jetty will save future Federal maintenance costs.

The Ponce DeLeon Inlet presents a serious engineering challenge, the success of which is measured in terms of human life and vessel damage. The existing project

has failed to stabilize the Inlet. Extending the North Jetty was the first step toward correcting the failure and meeting the challenge. Full funding of the 1,000 foot oceanward extension of the South Jetty is the next critical step toward providing safe passage for the commercial and recreational boaters in Volusia County.

State agencies, including the Florida Inland Navigation District and the Florida Department of Environmental Protection agree and therefore have committed to assisting the County in meeting the local cost share. In addition, providing these funds at this time is likely to prevent the need for a much more substantial maintenance project in the near future.

In addition to the construction funding for the jetty projects to protect the Ponce DeLeon Inlet, the County also requests $3,000,000 be appropriated in the Corps' Operations and Maintenance account, for the Corps to remove 300,000 cubic yards of sand from the North Cut of the Ponce DeLeon Inlet. As discussed above, the North Jetty construction was completed in July 2002 and the South Jetty construction will begin this year. Maintenance dredging is needed until both jetties are constructed.

Until both the North and South Jetty projects are operational, sand continues to shoal in the navigation channels of the Ponce DeLeon Inlet. The shoaling creates unsafe navigation conditions, thereby impeding commercial and recreational traffic. Removing 300,000 cubic feet of sand from the North Cut of the Inlet will greatly improve safe navigation. Finally, this effort is supported locally, as evidenced by the County's grant of $395,000 to the Corps for emergency dredging of the North Cut in fiscal year 2003.

Thank you for your consideration of this request.

PREPARED STATEMENT OF THE SEMINOLE TRIBE OF FLORIDA

The Seminole Tribe of Florida is pleased to submit this statement regarding the fiscal year 2004 budget for the Army Corps of Engineers (Corps). The Tribe asks that Congress provide $14,835,000 in the Corps' construction budget for critical projects in the South Florida Ecosystem, as authorized in section 208 of the Water Resources Development Act (WRDA) of 1999. On January 7, 2000, the Tribe and the Corps signed a Project Coordination Agreement for the Big Cypress Reservation's critical project. The Tribe's critical project includes a complex water conservation plan and a canal that transverses the Reservation. In signing this Agreement, the Tribe, as the local sponsor, committed to funding half of the cost of this approximately $50 million project. Design and planning efforts continue, and the first phase of construction is nearly complete.

The Tribe's critical project is a part of the Tribe's Everglades Restoration Initiative, which includes the design and construction of a comprehensive water conservation system. This project is designed to improve the water quality and natural hydropatterns in the Big Cypress Basin. This project will contribute to the overall success of both the Federal and the State governments' multi-agency effort to preserve and restore the delicate ecosystem of the Florida Everglades. In recognition of this contribution, the Seminole Tribe's Restoration Initiative has been endorsed by the South Florida Ecosystem Restoration Task Force.

THE SEMINOLE TRIBE OF FLORIDA

The Seminole Tribe lives in the Florida Everglades. The Big Cypress Reservation is located in the western basins, directly north of the Big Cypress National Preserve. The Everglades provide many Seminole Tribal members with their livelihood. Traditional Seminole cultural, religious, and recreational activities, as well as commercial endeavors, are dependent on a healthy Everglades ecosystem. In fact, the Tribe's identity is so closely linked to the land that Tribal members believe that if the land dies, so will the Tribe.

During the Seminole Wars of the 19th Century, the Tribe found protection in the hostile Everglades. But for this harsh environment filled with sawgrass and alligators, the Seminole Tribe of Florida would not exist today. Once in the Everglades, Seminoles learned how to use the natural system for support without harm to the environment that sustained them. For example, the native dwelling, the chickee, is made of cypress logs and palmetto fronds and protects its inhabitants from the sun and rain, while allowing maximum circulation for cooling. When a chickee has outlived its useful life, the cypress and palmetto return to the earth to nourish the soil.

In response to social challenges within the Tribe, Tribal elders provided guidance. Tribal elders directed the Tribe's leadership to look to the land, for when the land was ill, the Tribe would soon be ill as well. When looking at the land, the leadership saw the Everglades in decline and recognized that the Tribe had to help mitigate the impacts of man on this natural system. At the same time, tribal members ac-

knowledged that this land must sustain the Tribe and its culture. The clear message from the Tribal elders and the land called for a way of life to preserve the land and the Tribe. Tribal members must be able to work and sustain themselves. Tribal leadership needs to protect the land and the animals, while also protecting Tribal farmers and ranchers.

Recognizing the needs of the land and the people, the Tribe, along with its consultants, designed a plan to mitigate the harm to the land and water systems within the Reservation while ensuring a sustainable future for the Seminole Tribe of Florida. The restoration plan will allow Tribal members to continue their farming and ranching activities while improving water quality and restoring natural hydroperiod to large portions of the native lands on the Reservation and ultimately, positively effecting the Big Cypress National Preserve and Everglades National Park.

The Seminole Tribe's project addresses the environmental degradation wrought by decades of Federal flood control construction and polluted urban and other agricultural runoff. The interrupted sheet flow and hydroperiod have stressed native species and encouraged the spread of exotic species. Nutrient-laden runoff has supported the rapid spread of cattails, which choke out the periphyton algae mat and sawgrass necessary for the success of the wet/dry cycle that supports the wildlife of the Everglades.

The Seminole Tribe designed an Everglades Restoration project that reflects the need to live off of the land while minimizing impacts on the Everglades. The Seminole Tribe is committed to improving the water quality and flows on the Big Cypress Reservation. The Tribe already has committed significant resources to the design and construction of this project and to its water quality data collection and monitoring system. The Tribe is willing to continue its efforts and to commit more resources, for its cultural survival is at stake.

SEMINOLE TRIBE'S BIG CYPRESS CRITICAL PROJECT

The Tribe has developed a water conservation plan that will improve water quality essential to the cleanup of the Everglades ecosystem and to plan for the storage and conveyance of Tribal water rights. The Tribe's Everglades Restoration Initiative is designed to mitigate the degradation the ecosystem has suffered through decades of flood control projects and urban and agricultural use and ultimately to restore the Nation's largest wetlands to a healthy state.

The Seminole Tribe's critical project, a part of the water conservation plan, provides for the design and construction of flood control, storage, and treatment facilities on the western half of the Big Cypress reservation with other conveyance facilities on the eastern side. The project elements include canal and pump conveyance systems, including major canal bypass structures, irrigation storage cells, and water quality polishing areas. This project will enable the Tribe to meet targets for low phosphorus concentrations, as well as to convey and store irrigation water and improve flood control. It will also provide an important public benefit: a new system to convey excess water from the western basins to the Big Cypress National Preserve, where water is vitally needed for rehydration and restoration of natural systems within the Preserve.

CONCLUSION

Improving the water quality of the basins feeding into the Big Cypress National Preserve and the Everglades National Park is vital to restoring the Everglades for future generations. Congress has acknowledged this need through the passage of the last three Water Resource Development Acts. This Committee has consistently shown its support through appropriating requested amounts over the last 6 fiscal years. By continuing to grant this appropriation request for critical project funding, the Federal government will take another substantive step towards improving the quality of the surface water that flows over the Big Cypress Reservation and on into the delicate Everglades ecosystem. Such responsible action with regard to the Big Cypress Reservation, which is Federal land held in trust for the Tribe, will send a clear message that the Federal government is committed to Everglades restoration and the Tribe's stewardship of its land.

Completion of the critical project requires a substantial commitment from the Tribe, including the dedication of over 2,400 acres of land for water management improvements and meeting a 50/50 cost share. The Tribe has initiated the first phase of construction with the main conveyance canal. As the Tribe moves forward with its contribution to the restoration of the South Florida ecosystem, increasing Federal financial assistance will be needed as well.

The Tribe has demonstrated its economic commitment to the Everglades Restoration effort; the Tribe is asking the Federal government to also participate in that

effort. This effort benefits not just the Seminole Tribe, but all Floridians who depend on a reliable supply of clean, fresh water flowing out of the Everglades, and all Americans whose lives are enriched by this unique national treasure.

Thank you for the opportunity to present the request of the Seminole Tribe of Florida. The Tribe will provide additional information upon request.

PREPARED STATEMENT OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

MURRIETA CREEK FLOOD CONTROL PROJECT

Murrieta Creek poses a severe flood threat to the cities of Murrieta and Temecula. Over $10 million in damages was experienced in the two cities as a result of Murrieta Creek flooding in 1993. The 1997 Energy and Water Appropriations Act dedicated $100,000 to conducting a Reconnaissance Study of watershed management in the Santa Margarita Watershed "including flood control, environmental restoration, stormwater retention, water conservation and supply, and related purposes". The study effort was initiated in April 1997 and completed the following December. The Reconnaissance Study identified a Federal interest in flood control on the Murrieta sub-basin, and recommended moving forward with a detailed feasibility study for a flood control project on Murrieta Creek.

Efforts on the Feasibility Study began in April 1998 and were completed in September 2000. The Feasibility Study Report recommends the implementation of Alternative 6, the Locally Preferred Plan (LPP) for flood control, environmental restoration and recreation. The LPP is endorsed by the Cities of Temecula and Murrieta and by the community as a whole.

H.R. 5483, the Energy and Water Appropriations Act of 2000 included specific language authorizing the Corps to construct "the locally preferred plan for flood control, environmental restoration and recreation described as Alternative 6, based on the Murrieta Creek Feasibility Report and Environmental Impact Statement dated September 2000".

After finalizing the necessary cost sharing agreement in February 2001, the Corps initiated the detailed engineering design necessary to develop construction plans and specifications for a Murrieta Creek Project utilizing a fiscal year 2001 appropriation of $750,000. The project received an additional appropriation of $1,000,000 for engineering design efforts in fiscal year 2002. Those funds were utilized to develop design-level topographic mapping for the entire 7-mile long project, to complete all necessary geotechnical work, and to begin the preparation of construction drawings for the initial phases of construction.

The Murrieta Creek Flood Control Project is being designed and will be constructed in four distinct phases. Phases 1 and 2 include channel improvements through the city of Temecula. Phase 3 involves the construction of a 240-acre detention basin, including the 160-acre restoration site and over 50 acres of recreational facilities. Phase 4 of the project will include channel improvements through the city of Murrieta. Equestrian, bicycle and hiking trails as well as a continuous habitat corridor for wildlife are components of this and every phase of the project.

The Omnibus Appropriations Bill for fiscal year 2003 provides $1 million for a new construction start for this critical public safety project. Construction activities on Phase 1 of the project will commence in the Fall of 2003. The appropriation also allows the Corps to complete its engineering design work for Phase 2 of the project. Phase 2 traverses the area of Temecula hardest hit with damages from the severe flooding of 1993. The Corps anticipates having a Phase 2 construction contract ready to award in the Summer of 2004. The District therefore respectfully requests the Committee's support of a $4 million appropriation in fiscal year 2004 so that the Corps may complete construction on Phase 1, and initiate construction on Phase 2 of the long awaited Murrieta Creek Flood Control, Environmental Restoration and Recreation Project.

SANTA ANA RIVER—MAINSTEM

The Water Resources Development Act of 1986 (Public Law 99–662) authorized the Santa Ana River—All River project that includes improvements and various mitigation features as set forth in the Chief of Engineers' Report to the Secretary of the Army. The Boards of Supervisors of Orange, Riverside and San Bernardino Counties continue to support this critical project as stated in past resolutions to Congress.

The three local sponsors and the Corps signed the Local Cooperation Agreement (LCA) in December 1989. The first of five construction contracts started on the

Seven Oaks Dam feature in the spring of 1990 and the dam was officially completed on November 15, 1999. A dedication ceremony was held on January 7, 2000. Significant construction has been completed on the lower Santa Ana River Channel and on the San Timoteo Creek Channel. Construction activities on Oak Street Drain and the Mill Creek Levee have been completed. Seven Oaks Dam was turned over to the Local Sponsors for operation and maintenance on October 1, 2002.

For fiscal year 2004, an appropriation of $5.7 million is necessary to initiate construction activities on several features within "Reach 9" of the Santa Ana River immediately downstream of Prado Dam. This segment of the Santa Ana River project is the last to receive flood protection improvements. The streambed existing today in a relatively natural state would receive only localized levee and slope revetment treatment to protect existing development along its southerly bank. Approximately $500,000 of the total $5.7 million appropriation requested for Reach 9 would fund environmental mitigation measures necessitated by the Corps' construction activities.

The completion of landscaping activities on Reaches 5, 6 and 8 of the Santa Ana River Channel in Orange County would require a $5 million appropriation. The removal of accumulated sediment within an already completed section of the Santa Ana River Channel near its outlet to the Pacific Ocean will necessitate an fiscal year 2004 appropriation of $5 million. This dredging work is necessary before project turnover to the Local Sponsors for operation and maintenance.

Construction activities on the last remaining phase of San Timoteo Creek Channel, a Mainstem feature located within San Bernardino County, would be completed given a final $15 million appropriation.

The Prado Dam feature of the Santa Ana River Mainstem project is in need of several major upgrades in order that it mitigate the potential impacts of a 100-year storm. All of the engineering work necessary to redesign the dam is now complete. In fiscal year 2003, the Corps was able to award a construction contract to begin modifications to the dam embankment and outlet works.

An fiscal year 2004 appropriation of $37.164 million would allow the Corps to continue with the construction of improvements to Prado Dam's outlet works and embankment, and would fund all necessary environmental mitigation measures. We, therefore, respectfully request that the Committee support an overall $67,864,000 appropriation of Federal funding for fiscal year 2004 for the Santa Ana River Mainstem project including Prado Dam.

SAN JACINTO & SANTA MARGARITA RIVER WATERSHEDS
SPECIAL AREA MANAGEMENT PLANS

The County of Riverside recognizes the interdependence between the region's future transportation, habitat, open space, and land-use/housing needs. In 1999, work was initiated on Riverside County's Integrated Planning program (RCIP) to determine how best to balance these factors. The plan will create regional conservation and development plans that protect entire communities of native plants and animals while streamlining the process for compatible economic development in other areas. The major elements of the plan include water resource identification, multi-species planning, land use and transportation.

In order to achieve a balance between aquatic resource protection and economic development, the Corps is developing what are termed Special Area Management Plans (SAMP) for both the San Jacinto and Santa Margarita Watersheds. This comprehensive planning effort will be used to assist Federal, State and local agencies with their decision making and permitting authority to protect, restore and enhance aquatic resources while accommodating various types of development activities. The Santa Margarita and San Jacinto watersheds include such resources as woodlands, wetlands, freshwater marshes, vernal pools, streams, lakes and rivers.

The final product of the SAMP will be the establishment of an abbreviated or expedited regulatory permit by the Corps under Section 404 of the Clean Water Act. The Corps' effort includes facilitating meetings between all potential watershed partners, and the integration of the joint study effort with the planning efforts of the balance of the RCIP project.

The $500,000 Federal appropriation received for fiscal year 2001 allowed the Corps to initiate work on this 3 year, $5.5 million SAMP effort. The $2 million appropriation received in fiscal year 2002 allowed the Corps to make significant progress on a "landscape level aquatic resource delineation", and to initiate a functional assessment to determine the value of waters and wetlands. The $1 million appropriation received for fiscal year 2003 allowed the Corps to complete their wetlands delineation effort.

Further funding is now needed to complete the SAMP effort. We, therefore, respectfully request that the Committee support a combined $2,000,000 appropriation of Federal funding for fiscal year 2004 for the Corps to continue its work on the Special Area Management Plans for the San Jacinto and Santa Margarita River Watersheds.

PREPARED STATEMENT OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

On behalf of the Metropolitan Water Reclamation District of Greater Chicago (District), I want to thank the Subcommittee for this opportunity to present our priorities for fiscal year 2004 and, at the same time, express our appreciation for your support of the District's projects in the years past. The District is the local sponsor for three Corps of Engineers priority projects of the Chicagoland Underflow Plan: the O'Hare, McCook and Thornton Reservoirs. We are requesting the Subcommittee's full support for McCook and Thornton Reservoirs, as the O'Hare Reservoir has been completed. Specifically, we request the Subcommittee to include a total of $32,000,000 in construction funding for the McCook and Thornton Reservoir projects in the bill. The following text outlines these projects and the need for the requested funding.

THE CHICAGOLAND UNDERFLOW PLAN

The Chicagoland Underflow Plan (CUP) consists of three reservoirs: the O'Hare, McCook and Thornton Reservoirs. These reservoirs are a part of the Tunnel and Reservoir Plan (TARP). The O'Hare Reservoir Project was fully authorized for construction in the Water Resources Development Act of 1986 (Public Law 99–662) and completed by the Corps in fiscal year 1999. This reservoir is connected to the existing O'Hare segment of the TARP. Adopted in 1972, TARP was the result of a multi-agency effort, which included officials of the State of Illinois, County of Cook, City of Chicago, and the District.

TARP was designed to address the overwhelming water pollution and flooding problems of the Chicagoland combined sewer areas. These problems stem from the fact that the capacity of the area's waterways has been overburdened over the years and has become woefully inadequate in both hydraulic and assimilative capacities. These waterways are no longer able to carry away the combined sewer overflow (CSO) discharges nor are they able to assimilate the pollution associated with these discharges. Severe basement flooding and polluted waterways (including Lake Michigan, which is the source of drinking water for millions of people) is the inevitable result. We point with pride to the fact that TARP was found to be the most cost-effective and socially and environmentally acceptable way for reducing these flooding and water pollution problems. Experience to date has reinforced such findings with respect to economics and efficiency.

The TARP plan calls for the construction of the new "underground rivers" beneath the area's waterways. The "underground rivers" are tunnels up to 35 feet in diameter and 350 feet below the surface. To provide an outlet for these tunnels, reservoirs will be constructed at the end of the tunnel systems. Approximately 93.4 miles of tunnels, constructed at a total cost of $2.0 billion, are operational. Another 8.1 miles of tunnels, costing $141 million, are substantially complete and the final 7.9 miles of tunnels, costing $168 million, are under construction. The tunnels capture the majority of the pollution load by capturing all of the small storms and the first flush of the large storms. The completed O'Hare CUP Reservoir provides 350 million gallons of storage. This Reservoir has a service area of 11.2 square miles and provides flood relief to 21,535 homes in Arlington Heights, Des Plaines and Mount Prospect. In its first 5 years of operation, O'Hare CUP Reservoir has yielded $57.4 million in flood damage reduction benefits, which exceeds its $44.5 million construction costs. The Thornton and McCook Reservoirs are currently under construction, but until they are completed significant areas will remain unprotected. Without these outlets, the local drainage has nowhere to go when large storms hit the area.

Since its inception, TARP has not only abated flooding and pollution in the Chicagoland area, but has helped to preserve the integrity of Lake Michigan. In the years prior to TARP, a major storm in the area would cause local sewers and interceptors to surcharge resulting in CSO spills into the Chicagoland waterways and during major storms into Lake Michigan, the source of drinking water for the region. Since these waterways have a limited capacity, major storms have caused them to reach dangerously high levels resulting in massive sewer backups into basements and causing multi-million dollar damage to property.

Since implementation of TARP, 734 billion gallons of CSOs have been captured by TARP, that otherwise would have reached waterways. Area waterways are once again abundant with many species of aquatic life and the riverfront has been reclaimed as a natural resource for recreation and development. Closure of Lake Michigan beaches due to pollution has become a rarity. After the completion of both phases of TARP, 99 percent of the CSO pollution will be eliminated. The elimination of CSOs will reduce the quantity of discretionary dilution water needed to keep the area waterways fresh. This water can be used instead for increasing the drinking water allocation for communities in Cook, Lake, Will and DuPage counties that are now on a waiting list to receive such water. Specifically, since 1977, these counties received an additional 162 million gallons of Lake Michigan water per day, partially as a result of the reduction in the District's discretionary diversion since 1980. Additional allotments of Lake Michigan water will be made to these communities, as more water becomes available from reduced discretionary diversion.

With new allocations of lake water, more than 20 communities that previously did not get lake water are in the process of building, or have already built, water mains to accommodate their new source of drinking water. The new source of drinking water will be a substitute for the poorer quality well water previously used by these communities. Partly due to TARP, it is estimated by IDOT that between 1981 and 2020, 283 million gallons per day of Lake Michigan water would be added to domestic consumption. This translates into approximately 2 million additional people that would be able to enjoy Lake Michigan water. This new source of water supply will not only benefit its immediate receivers but will also result in an economic stimulus to the entire Chicagoland area by providing a reliable source of good quality water supply.

THE MCCOOK AND THORNTON RESERVOIRS

The McCook and Thornton Reservoirs of the Chicagoland Underflow Plan (CUP) were fully authorized for construction in the Water Resources Development Act of 1988 (Public Law 100–676). These CUP reservoirs, as previously discussed, are a part of TARP, a flood protection plan that is designed to reduce basement flooding due to combined sewer back-ups and inadequate hydraulic capacity of the urban waterways.

These reservoirs will provide a storage capacity of 18 billion gallons and will provide annual benefits of $115 million. The total potential annual benefits of these projects are approximately twice as much as their total annual cost. The District, as the local sponsor, has acquired the land necessary for these projects, and will meet its cost sharing obligations under Public Law 99–662.

These projects are a very sound investment with a high rate of return. They will enhance the quality of life, safety and the peace of mind of the residents of this region. The State of Illinois has endorsed these projects and has urged their implementation. In professional circles, these projects are hailed for their farsightedness, innovation, and benefits.

Based on two successive Presidentially-declared flood disasters in our area in 1986 and again in 1987, and dramatic flooding in the last several years, we believe the probability of this type of flood emergency occurring before implementation of the critical flood prevention measure is quite high. As the public agency for the greater Chicagoland area responsible for water pollution control, and as our past sponsorship for flood control projects, we have an obligation to protect the health and safety of our citizens. We are asking your support in helping us achieve this necessary and important goal of construction completion.

We have been very pleased that over the years the Subcommittee has seen fit to include critical levels of funds for these important projects. We were delighted to see the $14,000,000 in construction funds for the McCook and Thornton Reservoirs included in the Omnibus Appropriations bill for fiscal year 2003. However, it is important that we receive a total of $32,000,000 in construction funds in fiscal year 2004 to maintain the commitment and accelerate these projects. This funding is critical to continue the construction of the McCook Reservoir on schedule, in particular, to complete construction of the grout curtain, distribution tunnels, and pumps and motors and to accelerate the design of the Thornton Reservoir. The community has waited long enough for protection and we need these funds now to move the project in construction. We respectfully request your consideration of our request.

SUMMARY

Our most significant recent flooding occurred on February 20, 1997, when almost 4 inches of rain fell on the greater Chicagoland area. Due to the frozen ground, almost all of the rainfall entered our combined sewers, causing sewerage back-ups

throughout the area. When the existing TARP tunnels filled with approximately 1.2 billion gallons of sewage and runoff, the only remaining outlets for the sewers were our waterways. Between 9:00 p.m. and 3:00 a.m., the Chicago and Calumet Rivers rose 6 feet. For the first time since 1981 we had to open the locks at all three of the waterway control points; these include Wilmette, downtown Chicago, and Calumet. Approximately 4.2 billion gallons of combined sewage and stormwater had to be released directly into Lake Michigan.

Given our large regional jurisdiction and the severity of flooding in our area, the Corps was compelled to develop a plan that would complete the uniqueness of TARP and be large enough to accommodate the area we serve. With a combined sewer area of 375 square miles, consisting of the city of Chicago and 51 contiguous suburbs, there are 1,443,000 structures within our jurisdiction, which are subject to flooding at any time. The annual damages sustained exceed $150 million. If TARP, including the CUP Reservoirs were in place, these damages could be eliminated. We must consider the safety and peace of mind of the two million people who are affected as well as the disaster relief funds that will be saved when these projects are in place. As the public agency in the greater Chicagoland area responsible for water pollution control, and as the regional sponsor for flood control, we have an obligation to protect the health and safety of our citizens. We are asking your support in helping us achieve this necessary and important goal. It is absolutely critical that the Corps' work, which has been proceeding for a number of years, now proceeds on schedule through construction.

Therefore, we urgently request that a total of $32,000,000 in construction funds be made available in the fiscal year 2004 Energy and Water Development Appropriations Act to continue construction of the McCook and Thornton Reservoir Projects.

Again, we thank the Subcommittee for its support of this important project over the years, and we thank you in advance for your consideration of our request this year.

PREPARED STATEMENT OF THE CALAVERAS COUNTY WATER DISTRICT

SACRAMENTO AND SAN JOAQUIN COMPREHENSIVE BASIN STUDY

CALAVERAS COUNTY CONJUNCTIVE USE AND GROUNDWATER FEASIBILITY STUDY

Calaveras County Water District

Calaveras County (County) is located in the central Sierra Nevada foothills about 25 miles east of the Sacramento-San Joaquin Delta (Delta). Ground elevations within the County increase from 200 feet above mean sea level near the northwest part of the County to 8,170 feet near Alpine County. It is a predominately rural county with a relatively sparse population and agricultural and industrial development. Calaveras County is located within the watersheds of the Mokelumne, Calaveras, and Stanislaus Rivers. All these rivers flow west, through San Joaquin County into the Delta. Most of the County is underlain by the igneous and metamorphic rocks of the Sierra Nevada. Alluvial deposits of the Central Valley, which overlie the westward plunging Sierra Nevada, are present along an 80 square-mile area located along the western edge of the county and are part of the Eastern San Joaquin County Groundwater Basin (ESJCGB). This requested conjunctive use and groundwater feasibility study under the authority of the Corps of Engineers' Sacramento and San Joaquin Comprehensive Basin Study will be focused on the western part of Calaveras County.

In the fall of 1946, the Calaveras County Water District (CCWD) was organized under the laws of the State of California as a public agency for the purpose of developing and administering the water resources in Calaveras County. Therefore, CCWD is a political subdivision of the State of California and is governed by the California Constitution and the California Government and Water Codes. CCWD is not a part of or under the control of the County of Calaveras. CCWD was formed to preserve and develop water resources and to provide water and sewer service to the citizens of Calaveras County.

Under State law, CCWD, through its Board of Directors, has general powers over the use of water within its boundaries. These powers include but are not limited to: the right of eminent domain, authority to acquire, control, distribute, store, spread, sink, treat, purify, reclaim, process and salvage any water for beneficial use, to provide sewer service, to sell treated or untreated water, to acquire or construct hydroelectric facilities and sell the power and energy produced to public agencies or public utilities engaged in the distribution of power, to contract with the United

States, other political subdivisions, public utilities, or other persons, and subject to the California State Constitution, levy taxes and improvements.

Project Need

The Calaveras County Conjunctive Use and Groundwater Feasibility Study is needed to address future increasing water demands, provide water supply reliability in extended droughts, and help mitigate groundwater overdraft conditions in the ESJCGB.

The Calaveras County 1990 population totaled 32,000 people. By 2040, the County population is estimated to be between 100,000 and 150,000 (Source: Calaveras River Conjunctive Use Feasibility Study and Pilot Program Report prepared by Bookman-Edmonston, June 2001). The historic sparse population base has not required use of all the District's water supplies. The rate base also could not support construction of facilities needed to fully develop all the water resources available to the District. The county is now experiencing rapid growth, requiring the District to develop its remaining water supplies to meet the increasing demand.

Multi-year droughts can threaten the District's ability to meet water demands in the County. For example, the District's Jenny Lind Water Treatment Plant is located on the Calaveras River a few miles downstream of New Hogan Reservoir and during extended droughts, reduced inflows into New Hogan increase the chance that there may not be enough water to meet the current water demands. With increasing water demands projected in the future, the water shortages will continue in dry years and may become prevalent in normal and wet years.

The study area comprises the northeast portion of the ESJCGB as defined by the California Department of Water Resources (DWR). The ESJCGB is considered in an overdraft condition, and the western edge of the basin is subject to saline intrusion from the Delta. The California Department of Water Resources water level data for wells near the Calaveras-San Joaquin County line, have recorded water level declines ranging from 0.6 to 1.5 feet per year over the last 40 years. Without programs to mitigate the groundwater overdraft, groundwater levels will continue to decline in the groundwater basin.

Project Benefit

The Calaveras County Conjunctive Use and Groundwater Feasibility Study would be developed to identify and maximize the use of the District's surface water resources on the Mokelumne, Calaveras and Stanislaus Rivers in conjunction with the groundwater supply to improve supply reliability. The District currently does not use all of its available surface water from the rivers flowing through the County. The study would allow the District to investigate the use of more of its entitlement in wet years by recharging the groundwater basin with water the District is currently not using. The storage and transmission capacity of the groundwater basin would be used to store the banked surface water until it is needed. This water could then be used during an extended drought to supplement reduced surface water supplies to provide drinking water supplies to the area.

Maintaining supplies in District reservoirs, especially during dry years, provides benefit to the District and other river water users like the Stockton East Water District located in San Joaquin County. Developing local/Federal studies and programs like the Calaveras County Conjunctive Use and Groundwater Feasibility Study provides local and regional benefits. It also provides additional statewide benefits by contributing to the CALFED solution of meeting local water needs. By meeting their own water needs, local areas are not dependent upon the State to develop water supplies for them. This is consistent with the goals of the CALFED Integrated Storage Investigation (ISI).

Because of the overdraft of the ESJCGB, coupled with extended drought periods, reduced inflows increase the chance that there may not be enough water to meet current demands. Developing local/Federal studies like the Calaveras County Conjunctive Use and Groundwater Feasibility Study provides critical local and regional benefits allowing these areas to meet their own needs better.

The District, therefore, respectfully requests the Committee's support of $1,000,000 in appropriations in fiscal year 2004 within the Corps of Engineers' Program under the authority of the Sacramento and San Joaquin Comprehensive Basin Study, so that the Corps may initiate a feasibility study with regard to Calaveras County Conjunctive Use and Groundwater.

MOKELUMNE RIVER, CALAVERAS RIVER, AND STANISLAUS RIVER WATERSHEDS STUDY

Project Need

The Watershed Management Study Calaveras County Water District (CCWD) is seeking under the Corps of Engineers' program, within the Sacramento and San

Joaquin Comprehensive Basin Study authority, includes the Mokelumne River, Calaveras River and Stanislaus River Watersheds. It proceeds from the basic assumption that water resources management is most efficiently and effectively conducted on a watershed level.

Calaveras County is located in the central Sierra Nevada foothills. CCWD is responsible for developing and administering the water resources of Calaveras County. Historically, a significant portion of the water needs of Calaveras County have been met mostly with surface water from the Mokelumne, Calaveras or Stanislaus Rivers.

Groundwater was only used to meet demands in local areas. This proposed study area, which is part of the Eastern San Joaquin County Groundwater Basin (ESJCGB), has been identified by the State of California as being in a state of overdraft.

In an effort to gain a better understanding of the condition of the water sources and the surrounding environment, this watershed management approach is being requested. Some of the objectives of such a study may include:

—To restore, protect, and enhance water quality and associated aquatic resources and water supplies;

—To conserve, protect, and restore the natural resources of the Mokelumne, Calaveras and Stanislaus Rivers Watersheds (land, water, forest, and wildlife);

—To minimize the threat to life and the destruction of property and natural resources from flooding and to preserve (or re-establish) natural hydrologic functions;

—To restore, protect, develop, and enhance the ecological, historic, cultural, recreational, and visual amenities of rural and urban areas within the watersheds and particularly along stream corridors.

The terrain of the watershed varies from mild elevations and meadows in the western rolling foothills to more rugged mountains and wilderness in the eastern high Sierra region. Tourism and recreation, forest products, mineral resources, and agricultural products are significant elements of the area's economic base. As a result, a variety of land uses are found within the watersheds, including residential, forested, industrial, agricultural, and recreational. Residential land uses in Calaveras County are primarily rural residential, with the unincorporated community of San Andreas being the largest urban area within the watershed area. The California State Department of Finance (CSDF) estimates the 2000 population of Calaveras County to be about 38,500 persons.

While CCWD has been pursuing watershed management study efforts since 2000 in partnership with adjoining counties for more focused watershed management efforts, specifically in the Calaveras River Watershed, a comprehensive management study coupling all of the three watersheds (Mokelumne, Calaveras and Stanislaus Rivers), which fall within the jurisdiction of CCWD is critical to better plan for both water quantity and quality issues, and the environmental and natural resources issues facing the watershed.

The CCWD has not only been a principle partner in watershed management throughout the development of the more focused local watershed planning studies, but has been concerned about watershed issues since its very beginning as a water supply provider. CCWD believes that a healthy watershed, including healthy ecosystems and wildlife populations, makes the provision of clean drinking water easier for water districts.

Because of the need for a comprehensive watershed management program given the diversity of water supply, quality, environmental, natural resources and the region's economic base, which is dependent on its natural resources, we believe such an effort is warranted.

The District, therefore, respectfully requests the Committee's support of $500,000 in appropriations in fiscal year 2004 under the Corps of Engineer's program, within the authority of the Sacramento and San Joaquin Comprehensive Study, so that the Corps may initiate a feasibility study of the Mokelumne, Calaveras and the Stanislaus Rivers Watersheds within the service area of the CCWD.

PREPARED STATEMENT OF THE NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

NAPA RIVER FLOOD CONTROL PROJECT—BACKGROUND

The project is located in the city and county of Napa, California. The population in the city of Napa, approximately, 67,000 in 1994, is expected to exceed 77,000 this year. Excluding public facilities, the present value of damageable property within

the project flood plain is well over $500 million. The Napa River Basin, comprising 426 square miles, ranging from tidal marshes to mountainous terrain, is subject to severe winter storms and frequent flooding. In the lower reaches of the river, flood conditions are aggravated by high tides and local runoff. Floods in the Napa area have occurred in 1955, 1958, 1963, 1965, 1986 (flood of record), 1995, and 1997. In 1998, the river rose just above flood stage on three occasions, but subsided before major property damage occurred. In December of 2002, flooding occurred from the Napa Creek at the transition to the Napa River, resulting in damage to numerous residents and several businesses.

Since 1962, twenty-seven major floods have struck the Valley region, exacting a heavy toll in loss of life and property. The flood on 1986, for example, killed three people and caused more than $100 million in damage. Damages throughout Napa County totaled about $85 million from the January and March 1995 floods. The floods resulted in 27 businesses and 843 residences damaged countrywide. Almost all of the damages from the 1986, 1995, and 1997 floods were within the project area. Congress has authorized a flood control project since 1944, but due to expense, lack of public consensus on the design and concern about environment impacts, a project had never been realized. In mid-1995, Federal and State resource agencies reviewed the plan and gave notice to the Corps that this plan had significant regulatory hurdles to face.

APPROVED PLAN—PROJECT OVERVIEW

In an effort to identify a meaningful and successful plan, a new approach emerged that looked at flood control from a broader, more comprehensive perspective. Citizens for Napa River Flood Management was formed, bringing together a diverse group of local engineers, architects, aquatic ecologists, business and agricultural leasers, environmentalists, government officials, homeowners and renters and numerous community organizations.

Through a series of public meetings and intensive debate over every aspect of Napa's flooding problems, the Citizens for Napa River Flood Management crafted a flood management plan offering a range of benefits for the entire Napa region. The Corps of Engineers served as a partner and a resource for the group, helping to evaluate their approach to flood management. The final plan produced by the Citizens for Napa River Flood Management was successfully evaluated through the research, experience and state-of-the-art simulation tools developed by the Corps and numerous international experts in the field of hydrology and other related disciplines. The success of this collaboration serves as a model for the Nation.

Acknowledging the river's natural state, the project utilizes a set of living river strategies that minimize the disruption and alteration of the river habitat, and maximizes the opportunities for environmental restoration and enhancement throughout the watershed.

The Corps has developed the revised plan, which provides 100-year protection, with the assistance of the community and its consultants into the Supplemental General Design Memorandum (SGDM) and its accompanying draft Environmental Impact Statement/Environmental Impact Report (SEIS/EIR). Construction of the project began 2 years ago. The coalition plan now memorialized in the Corps final documents includes the following engineered components: lowering of old dikes, marsh plain and flood plain terraces, oxbow dry bypass, Napa Creek flood plain terrace, upstream and downstream dry culverts along Napa Creek, new dikes, levees and flood walls, bank stabilization, pump stations and detention facilities, and bridge replacements. The benefits of the plan include reducing or elimination of loss of life, property damage, cleanup costs, community disruption due to unemployment and lost business revenue, and the need for flood insurance. In fact, the project has created an economic renaissance in Napa with new investment, schools and housing coming into a livable community on a living river. As a key feature, the plan will improve water quality, create urban wetlands and enhance wildlife habitats.

The plan will protect over 7,000 people and over 3,000 residential/commercial units from the 100-year flood event on the Napa River and its main tributary, the Napa Creek, and the project has a positive benefit-to-cost ratio under the Corps calculation. One billion dollars in damages will be saved over the useful life of the project. The Napa County Flood Control District is meeting its local cost-sharing responsibilities for the project. A countywide sales tax, along with a number of other funding options, was approved 4 years ago by a two-thirds majority of the county's voters for the local share. Napa is California's highest repetitive loss community. This plan is demonstrative of the disaster resistant community initiative, as well, as the sustainable development initiatives of FEMA and EPA.

PROJECT SYNOPSIS

Fiscal Year 2003 Funding

The 2003 appropriations bill included $9,000,000 to continue construction of the project. The funding was sought for demolition of buildings and fixtures on 24 parcels that have been acquired by the non-Federal sponsor, relocation of the Napa Valley Wine Train rail line for an approximate 3 mile distance, as well as relocation of the facilities serving this public utility, removal of 190,000 cubic yards of soil which was contaminated by petroleum products,, construction of marsh and flood plain terraces for an approximate 1.5 mile distance. Included in this amount is the reimbursement to the non-Federal sponsor for expenditures in excess of 45 percent of the total project costs to date. The local sponsor has expended $90 million plus as compared to Federal sponsor expenditures to date of approximately $20 million.

Necessary Fiscal Year 2004 Funding

Funding for the Napa River Project during 2004 in the amount of $24,000,000 is needed to continue construction of the project. These funds will be used to accomplish the following tasks:

—Complete HTRW remediation along the east side of the river for additional 2 miles involving removal of an additional 200,000 cubic yards of contaminated soil;
—Initiate and complete the Contract 1B excavation work in Kennedy Park;
—Initiate Contract 2East excavation work on the east side of river from Imola to the Bypass;
—Continue engineering and design on future contracts;
—Accomplish Construction Management on contract underway;
—Initiate reimbursement of local sponsor with funds not required for the above.

Included in this amount is the reimbursement to the non-Federal sponsor for expenditures in excess of 45 percent of the total project costs to date. By the end of June, 2003 the non-Federal sponsor will have expended $150 million.

NAPA VALLEY WATERSHED MANAGEMENT—BACKGROUND

Napa Valley watershed faces many challenges and stresses to its environmental health and flood management abilities. From a healthy river point of view, the Napa River has been on a recovery path since its low point in the 1960's, when the last of the native salmon were taken from the system by severe water pollution and habitat destruction. Steelhead trout have survived as a remnant population of 200 that is presently in need of higher quality and more extensive spawning areas for recovery to a significant population. Beginning populations of fall run Chinook salmon have taken up residence in the watershed in those few areas available for spawning. While the chemical and wastewater pollution of earlier years has been effectively dealt with, excess sediment is still a critical stress on the salmon population, as it is to the spawning and rearing areas of the river in the estuarine zone upstream of San Pablo Bay, populated by delta smelt, splittail, green sturgeon and striped bass.

The U.S. EPA and Region II Water Quality Control Board have prioritized the River as an impaired water body because of the sediment production. The excess sediment generated in the watershed suffocates spawning areas, reduces the stream's flood-carrying ability, fills deep pools, increases turbidity in the stream and estuary, carries with it nutrients that bring significant algae blooms during the summer and fall, and changes the morphological balance of the streams and river toward more unstable conditions.

In order to address issues such as encroachment of the river and loss of wetlands and to develop local tools for improving natural resource management, the U.S. Army Corps of Engineers, San Francisco District (Corps) and the Napa County Flood Control and Water Conservation District (NCFCWCD) is currently developing a Napa Valley Watershed Management Plan (WMP) which identifies problems and opportunities for implementing environmentally and economically beneficial restoration in the Napa Valley watershed providing ecosystem benefits, such as flood reduction, erosion control, sedimentation management, and pollution abatement. The plan, which the District is requesting funds for, would include the identification, review, refinement, and prioritization of restoration and flood protection opportunities with an emphasis on restoration of the watershed's ecosystem (e.g.: important plant communities, healthy fish and wildlife populations, rare and endangered habitats and species and wildlife and riparian habitats).

The goal is to complete the WMP by providing technical, planning, and design assistance to the non-Federal interests for carrying out watershed management, restoration and development on the Napa River and its tributaries from Soscol Ridge,

located approximately 5 miles south of the city of Napa, to Mt. St. Helena, the northern most reach of the Napa River watershed, California. A management program incorporating flood protection and environmental restoration would be developed as a result of the watershed plan.

To address the above mentioned and other local, regional, and national watershed concerns, the Napa County Board of Supervisors appointed a Napa County Watershed Task Force (WTF) to identify community based and supported solutions. The WTF submitted their recommendation for further action to the Napa County Board of Supervisors.

The Corps and the NCFCWCD developed the Napa Valley Watershed Project Management Plan with input from the Napa County Planning Department (NCPD), Napa County Up-Valley Cities, Napa County Watershed Task Force (WTF), Napa County Resource Conservation District (RCD), Regional Water Quality Control Board (RWQCB), the San Francisco Estuary Institute (SFEI), and other regional and local stakeholders.

In an effort to identify problems and opportunities for implementing beneficial restoration in the Napa Valley Watershed, the Napa County Flood Control District is requesting the Napa Valley Watershed Management Study be continued by the Corps of Engineers. The authority for this study is the Northern California Streams Study Authority stemming from the Rivers and Harbors Act of 1962, Public Law 87–874. Specifically, the Napa County Flood Control District is working closely with the Corps in the feasibility report to examine the watershed management needs, including flood control, environmental restoration, erosion control, storm water retention, storm water runoff management, water conservation and supply, wetlands restoration, sediment management and pollution abatement in the Napa Valley, including the communities of Napa, Yountville, St. Helena, Calistoga and the unincorporated areas of Napa County.

PROJECT SYNOPSIS

Fiscal Year 2003 Budget Funding

The fiscal year 2003 appropriations bill included $150,000 to continue the Napa Valley Watershed Management Study. Funds are being used for data evaluation and outreach and to create a data monitoring framework for the watershed. This framework, known as the Watershed Information Center (WIC), will serve as a coordinating body and data-monitoring framework for the watershed. The WIC will serve as a library for existing biological and physical data on the watershed. It can serve as a forum for the multiple agencies, academic researcher and non-profit organizations engaged in monitoring in the watershed.

Necessary Fiscal Year 2004 Funding

Funding for the Napa Valley Watershed Management Study during fiscal year 2004 in the amount of $350,000 is needed to complete an aerial photography/mapping project of the watershed area and complete the Watershed Information Center. The mapping project was started in fiscal year 2002 and in the current fiscal year has been supplemented with LIDAR topography measurements provided by the State Regional Water Quality Control Board. This mapping provides a Geographical Information System (GIS) base for the management information of the watershed. The WIC also was started in fiscal year 2002 and the current request will complete creation of this data system. Both of these activities are cornerstone components of the Napa Valley Watershed Management Study.

PREPARED STATEMENT OF THE CITY OF ST. HELENA, CALIFORNIA

The City of St. Helena is located in the center of the wine growing Napa Valley, 65 miles north of San Francisco. The area was settled in 1834 as part of General Vallejo's land grant. The City of St. Helena was incorporated as a City on March 24, 1876 and reincorporated on May 14, 1889.

The City from its inception has served as a rural agricultural center. Over the years, with the growth and development of the wine industry, the City has become an important business and banking center for the wine industry. The City also receives many tourists as a result of the wine industry. While, the main goal of the City is to maintain a small-town atmosphere and to provide quality services to its citizens, this is becoming increasingly difficult. Regulatory, administrative and resource requirements placed on the City through the listing of threatened and endangered species under the Endangered Species Act on the Napa River, as well as significant Clean Water Act requirements require the City with a small population base to face significant financial costs.

The City of St. Helena is a General Law City and operates under the Council-City Manager form of government. The City Council is the governing body and has the power to make and enforce all laws and set policy related to municipal affairs. The official population of the City of St. Helena as of January 1, 2002 is 6,019. St. Helena is a full service City and encompasses an area of 4 square miles. Because of its size and its rural nature, St. Helena has serious infrastructure, as well as, flood protection and environmental needs that far exceed its financial capabilities.

The Napa River flows along the north boundary of the City of St. Helena in northern Napa County. The overall Napa River Watershed historically supported a dense riparian forest and significant wetland habitat. Over the last 200 years, approximately 6,500 acres of valley floor wetlands have been filled in and 45,700 acres of overall watershed have been converted to urban and agricultural uses. This degradation of natural habitats has had a significant effect on water quality, vegetation and wildlife, and aquatic resources within the Napa River Watershed.

Surface water quality of the Napa River is dependent upon the time of year, runoff from York and Sulphur Creeks, and urban area discharges. During the winter months when streamflow is high, pollutants are diluted; however, sedimentation and turbidity is high as well. During the summer months when streamflow is low, pollutants are concentrated and oxygen levels are low, thereby decreasing water quality. Agricultural runoff adds pesticides, fertilizer residue, and sometimes sediment. Discharges from urban areas can include contaminated stormwater runoff and treated city wastewater. The Napa River has been placed on the Clean Water Act 303(d) List and TMDL Priority Schedule due to unacceptable levels of bacteria, sedimentation, and nutrients. It is against this backdrop that the City of St. Helena faces its biggest challenges.

ST. HELENA NAPA RIVER RESTORATION PROJECT

The Napa River and its riparian corridor are considered Critical Habitat for Steelhead and Salmon Recovery. The Steelhead is one of 6 Federally listed threatened and endangered species within the Napa River and its adjoining corridor which requires attention. Current conditions are such that natural habitats and geomorphic processes of the Napa River are highly confined with sediment transport and geomorphic work occurring in a limited area of the streambed and channel banks. Napa River's habitat for the steelhead is limited in its ability to provide prime spawning habitat. Limitations include: (1) urbanization removing significant amounts of shading and cover vegetation within and adjacent to the river; and (2) a detrimental lack of pool habitat. Encroachment and channelization of Napa River have degraded riparian habitat for rearing, resident, and migratory fish and wildlife. The lack of riparian cover, increasing water temperature and sedimentation in the river, has resulted in poor water quality. These changes have reduced the project area's ability to support the re-establishment of listed species.

In an effort to address these Federal environmental issues, the St. Helena Napa River Restoration Project, a Section 206 Aquatic Ecosystem Restoration Project, was identified in the Napa Valley Watershed Management Feasibility Study in April of 2001 as a specific opportunity for restoration. The project would restore approximately 3 miles (20 acres) of riparian habitat and improve the migratory capacity of Federally listed threatened and endangered species, providing greater access to rearing, resident and migratory habitats in the 80 square mile watershed above the project area.

The project will interface with and complement the City of St. Helena's multiple objective flood project, the St. Helena Flood Protection and Flood Corridor Restoration Project, which will provide flood damage reduction through restoration and re-establishment of the natural floodplain along the project reach, setting back levees and the re-creation and restoration of a natural floodway providing high value riparian forest.

This Section 206 project is necessary to ensure and improve the viability of Federal and State listed species by providing rearing, resident and migratory habitat in the project 3 mile stream corridor. The project will also work to improve area habitat to benefit the migration of steelhead to high value fisheries habitat in upper watershed channel reaches. In an effort to build on recent geomorphic and riparian studies on the Napa River, the Corps will use these efforts from Swanson Hydrology and Geomorphology and Stillwater Science to secure baseline information for this project.

The City of St. Helena respectfully requests the Committee's support for $360,000 for completing the Detailed Project Report and initiating plans and specifications for the St. Helena Napa River Restoration Project under the Corps' Section 206 Aquatic Ecosystem Restoration Program.

YORK CREEK DAM REMOVAL AND RESTORATION PROJECT

York Creek originates from the Coast Range on the western side of the Napa Valley Watershed at an elevation of approximately 1,800 feet and flows through a narrow canyon before joining the Napa River northeast of St. Helena. York Creek Dam on York Creek has been identified as a significant obstacle to passage for Federally listed Steelhead in the Central California Coast. In fact, it has been determined that York Creek Dam is a complete barrier to upstream fish migration. In addition, since the City of St. Helena has owned York Creek Dam, there has been a number of silt discharges from the dam into York Creek that have caused fish kills.

Under the Corps of Engineers' Section 206 Authority, a study is underway to remove the dam structure and to restore the creek in an effort to improve fish passage and ecological stream function for this Napa River tributary. Alternatives to be investigated and pursued include complete removal of York Creek Dam, appurtenances and accumulated sediment, re-grading and restoring the creek through the reservoir area. Rather than merely removing the dam and accumulated sediments, this alternative would use a portion of the material to re-grade the reservoir area to simulate the configuration of the undisturbed creek channel upstream. Material could also be used to fill in and bury the spillway and to fill in the scour hole immediately downstream of the spillway. Use of material on site will greatly reduce hauling and disposal costs, as well as recreating a more natural creek channel through the project area.

The revegetation plan for the site following removal of the earthen dam will restore a self-sustaining native plant community that is sufficiently established to exclude nonnative invasive plants. Revegetation will replace vegetation that is removed due to construction and stabilize sediments in the stream channel riparian corridor and upper bank slopes. The species composition of the revegetated site will be designed to match that of (relatively) undisturbed sites both above and below the project site. In terms of expected outcomes for the project, the removal of York Creek Dam will open an additional 2 miles of steelhead habitat upstream of the dam, and the channel restoration will reestablish natural channel geomorphic processes and restore riparian vegetation.

The City of St. Helena respectfully requests the Committee's support for $800,000 in appropriations under the Corps of Engineers' Section 206 Aquatic Ecosystem Restoration Program, so that the efforts can proceed on completing the plans and specification and initiating construction of the York Creek Dam Removal and Restoration Project.

PREPARED STATEMENT OF THE SANTA CLARA VALLEY WATER DISTRICT, SAN JOSE, CALIFORNIA

GUADALUPE RIVER PROJECT

Background.—The Guadalupe River is a major waterway flowing through a highly developed area of San Jose, in Santa Clara County, California. A major flood would damage homes and businesses in the heart of Silicon Valley. Historically, the river has flooded downtown San Jose and the community of Alviso. According to the U.S. Army Corps of Engineers (Corps) 2000 Final General Reevaluation & Environmental Report for Proposed Project Modifications, estimated damages from a 1 percent flood in the urban center of San Jose are over $576 million. The Guadalupe River overflowed in February 1986, January 1995, and March 1995, damaging homes and businesses in the St. John and Pleasant Street areas of downtown San Jose. In March 1995, heavy rains resulted in breakouts along the river that flooded approximately 300 homes and business.

Project Synopsis.—In 1971, the local community requested that the Corps reactivate its earlier study. Since 1972, substantial technical and financial assistance have been provided by the local community through the Santa Clara Valley Water District in an effort to accelerate the project's completion. To date, more than $85.8 million in local funds have been spent on planning, design, land purchases, and construction in the Corps' project reach.

The Guadalupe River Project received authorization for construction under the Water Resources Development Act of 1986; the General Design Memorandum was completed in 1992, the local cooperative agreement was executed in March 1992, the General Design Memorandum was revised in 1993, construction of the first phase of the project was completed in August 1994, construction of the second phase was completed in August 1996. Project construction was temporarily halted due to environmental concerns.

To achieve a successful, long-term resolution to the issues of flood protection, environmental mitigation, avoidance of environmental effects, and project monitoring and maintenance costs, a multi-agency "Guadalupe Flood Control Project Collaborative" was created in 1997. A key outcome of the collaborative process was the signing of the Dispute Resolution Memorandum in 1998, which modified the project to resolve major mitigation issues and allowed the project to proceed. Energy and Water Development Appropriations Act of 2002 was signed into law on November 12, 2001. This authorized the Modified Guadalupe River Project at a total cost of $226,800,000. Construction of the last phase of flood protection is scheduled for completion by December 2004 and is dependent on timely Federal funding and continuing successful mitigation issue resolution. The overall construction of the project including the river park and the recreation elements is scheduled for completion in 2006.

Fiscal Year 2003 Funding.—$8 million was authorized in fiscal year 2003 to continue Guadalupe River Project construction.

Fiscal Year 2004 Funding Recommendation.—Based upon the need to continue construction to provide critical flood protection for downtown San Jose and the community of Alviso, it is requested that the Congressional Committee support an appropriation add-on of $12 million, in addition to the $13 million in the Administration's fiscal year 2004 budget, for a total of $25 million to continue construction of the final phase of the Guadalupe River Flood Protection Project.

UPPER GUADALUPE RIVER PROJECT

Background.—The Guadalupe River is one of two major waterways flowing through a highly urbanized area of Santa Clara County, California, the heart of Silicon Valley. Historically, the river has flooded the central district and southern areas of San Jose. According to U.S. Army Corps of Engineers (Corps) 1998 feasibility study, severe flooding in the upper Guadalupe River's densely populated residential floodplain south of Interstate 280 would result from a 100-year flooding event and potentially cause $280 million in damages.

The probability of a large flood occurring before implementation of flood prevention measures is high. The upper Guadalupe River overflowed in March 1982, January 1983, February 1986, January 1995, March 1995, and February 1998, causing damage to several residences and businesses in the Alma Avenue and Willow Street areas. The 1995 floods in January and March, as well as in February 1998, closed Highway 87 and the parallel light-rail line, a major commute artery.

Project Synopsis.—In 1971, the Santa Clara Valley Water District (District) requested the Corps to reactivate its earlier study. From 1971 to 1980, the Corps established the economic feasibility and Federal interest in the Guadalupe River only between Interstate 880 and Interstate 280. Following the 1982 and 1983 floods, the District requested that the Corps reopen its study of the upper Guadalupe River upstream of Interstate 280. The Corps completed a reconnaissance study in November 1989, which established an economically justifiable solution for flood protection in this reach. The report recommended proceeding to the feasibility study phase, which began in 1990. In January 1997, the Corps determined that the National Economic Development Plan would be a 2 percent or 50-year level of flood protection rather than the 1 percent or 100-year level. The District strongly emphasized overriding the National Economic Development Plan determination, providing compelling reasons for using the higher 1 percent or 100-year level of protection. In 1998, the Acting Secretary of the Army did not concur to change the basis of cost sharing from the 50-year National Economic Development Plan to the locally preferred 100-year plan, resulting in a project that will provide less flood protection, and therefore, be unable to reduce flood insurance requirements and reimbursements, as well as eliminate recreational benefits and increase environmental impacts. Based on Congressional delegation requests, the Assistant Secretary of the Army directed the Corps to revise the Chief's Report to reflect more significant Federal responsibility. The Corps feasibility study determined the cost of the locally preferred 100-year plan is $153 million and the Corps National Economic Development Plan 50-year plan is $98 million. The District has requested that the costs of providing 50-year and 100-year flood protection be analyzed again during the preconstruction engineering design phase for the determination of the National Economic Development Plan. In a memorandum for the Assistant Secretary of the Army, dated October 12, 2000, Major General Hans A. Van Winkle, Deputy Commander for Civil Works, made a similar recommendation. The Federal cost share has yet to be determined. The project was approved for construction by the Water Resources Development Act of 1999 (Section 101).

Fiscal Year 2003 Funding.—$200,000 was authorized in fiscal year 2003 for the Upper Guadalupe River Project to continue preconstruction engineering and design.

Fiscal Year 2004 Funding Recommendation.—Based upon the high risk of flood damage from the upper Guadalupe River and the need to complete preconstruction engineering and design, it is requested that the Congressional Committee support an appropriation add-on of $3.3 million in fiscal year 2004 for the Upper Guadalupe River Flood Protection Project.

UPPER PENITENCIA CREEK FLOOD PROTECTION PROJECT

Background.—The Upper Penitencia Creek Watershed is located in northeast Santa Clara County, California, near the southern end of the San Francisco Bay. In the last two decades, the creek has flooded in 1980, 1982, 1983, 1986, 1995, and 1998. The January 1995 flood damaged a commercial nursery, a condominium complex, and a business park. The February 1998 flood also damaged many homes, businesses, and surface streets.

The proposed project on Upper Penitencia Creek, from the Coyote Creek confluence to Dorel Drive, will protect portions of the cities of San Jose and Milpitas. The floodplain is completely urbanized; undeveloped land is limited to a few scattered agricultural parcels and a corridor along Upper Penitencia Creek. Based on the U.S. Army Corps of Engineers' (Corps) 1995 reconnaissance report, 4,300 buildings in the cities of San Jose and Milpitas are located in the flood prone area, 1,900 of which will have water entering the first floor. The estimated damages from a 1 percent or 100-year flood exceed $121 million.

Study Synopsis.—Under authority of the Watershed Protection and Flood Prevention Act (Public Law 83–566), the Natural Resources Conservation Service (formerly the Soil Conservation Service) completed an economic feasibility study (watershed plan) for constructing flood damage reduction facilities on Upper Penitencia Creek. Following the 1990 U.S. Department of Agriculture Farm Bill, the Natural Resources Conservation Service watershed plan stalled due to the very high ratio of potential urban development flood damage compared to agricultural damage in the project area.

In January 1993 the Santa Clara Valley Water District (District) requested the Corps proceed with a reconnaissance study in the 1994 fiscal year while the Natural Resources Conservation Service plan was on hold. Funds were appropriated by Congress for fiscal year 1995 and the Corps started the reconnaissance study in October 1994. The reconnaissance report was completed in July 1995, with the recommendation to proceed with the feasibility study phase. The feasibility study, initiated in February 1998, is currently scheduled for completion in 2005.

Advance Construction.—To accelerate project implementation, the District submitted a Section 104 application to the Corps for advance approval to construct a portion of the project. Approval of the Section 104 application was awarded in December 2000. The advance construction is for a 2,600-foot long section of bypass channel between Coyote Creek and King Road. The District was planning to begin construction on this portion of the project in 2002. However, due to funding constraints, the current plan is for the District to complete the design and to turn it over to the Corps to construct when the upstream reaches are ready for construction.

Fiscal Year 2003 Funding.—$559,000 was appropriated in fiscal year 2003 for the Upper Penitencia Creek Flood Protection Project for project investigation.

Fiscal Year 2004 Funding Recommendation.—Based upon the high risk of flood damage from Upper Penitencia Creek and the need to proceed with the feasibility study, it is requested that the Congressional Committee support the $460,000 in the Administration's fiscal year 2004 budget for the Upper Penitencia Creek Flood Protection Project.

LLAGAS CREEK PROJECT

Background.—The Llagas Creek Watershed is located in southern Santa Clara County, California, serving the communities of Gilroy, Morgan Hill and San Martin. Historically, Llagas Creek has flooded in 1937, 1955, 1958, 1962, 1963, 1969, 1982, 1986, 1996, 1997, and 1998. The 1997, 1998, and 2002 floods damaged many homes, businesses, and a recreational vehicle park located in areas of Morgan Hill and San Martin. These are areas where flood protection is proposed. Overall, the proposed project will protect the floodplain from a 1 percent flood affecting more than 1,100 residential buildings, 500 commercial buildings, and 1,300 acres of agricultural land.

Project Synopsis.—Under authority of the Watershed Protection and Flood Prevention Act (Public Law 83–566), the Natural Resources Conservation Service completed an economic feasibility study in 1982 for constructing flood damage reduction

facilities on Llagas Creek. The Natural Resources Conservation Service completed construction of the last segment of the channel for Lower Llagas Creek in 1994, providing protection to the project area in Gilroy. The U.S. Army Corps of Engineers (Corps) is currently updating the 1982 environmental assessment work and the engineering design for the project areas in Morgan Hill and San Martin. The engineering design is being updated to protect and improve creek water quality and to preserve and enhance the creek's habitat, fish, and wildlife while satisfying current environmental and regulatory requirement. Significant issues include the presence of additional endangered species including the red-legged frog and steelhead, listing of the area as probable critical habitat for steelhead, and more extensive riparian habitat than were considered in 1982. Project economics are currently being updated as directed by Corps Headquarters to determine continued project economic viability.

Until 1996, the Llagas Creek Project was funded through the traditional Public Law 83–566 Federal project funding agreement with the Natural Resources Conservation Service paying for channel improvements and the District paying local costs including utility relocation, bridge construction, and right of way acquisition. Due to the steady decrease in annual appropriations for the Public Law 83–566 construction program since 1990, the Llagas Creek Project has not received adequate funding from U.S. Department of Agriculture to complete the Public Law 83–566 project. To remedy this situation, the District worked with congressional representatives to transfer the construction authority from the Department of Agriculture to the Corps under the Water Resources Development Act of 1999 (Section 501). Since the transfer of responsibility to the Corps, the District has been working the Corps to complete the project.

Fiscal Year 2003 Funding.—$325,000 was appropriated in fiscal year 2003 for the Llagas Creek Flood Protection Project for planning and design.

Fiscal Year 2004 Funding Recommendation.—Based upon the high risk of flood damage from Llagas Creek, it is requested that the Congressional Committee support an appropriation add-on of $900,000 in fiscal year 2004 for planning and environmental updates for the Llagas Creek Project.

COYOTE/BERRYESSA CREEK PROJECT

BERRYESSA CREEK PROJECT ELEMENT

Background.—The Berryessa Creek Watershed is located in northeast Santa Clara County, California, near the southern end of the San Francisco Bay. A major tributary of Coyote Creek, Berryessa Creek drains 22 square miles in the City of Milpitas and a portion of San Jose.

On average, Berryessa Creek floods once every 4 years. The most recent flood in 1998 resulted in significant damage to homes and automobiles. The proposed project on Berryessa Creek, from Calaveras Boulevard to upstream of Old Piedmont Road, will protect portions of the Cities of San Jose and Milpitas. The flood plain is largely urbanized with a mix of residential and commercial development. Based on the U.S. Army Corps of Engineers (Corps) 1993 draft General Design Memorandum, a 1 percent or 100-year flood could potentially result in damages of $52 million with depths of up to 3 feet.

Study Synopsis.—In January 1981, the Santa Clara Valley Water District (District) applied for Federal assistance for flood protection projects under Section 205 of the 1948 Flood Control Act. The Water Resources Development Act of 1990 authorized construction on the Berryessa Creek Flood Protection Project as part of a combined Coyote/Berryessa Creek Project to protect portions of the Cities of Milpitas and San Jose.

The Coyote Creek element of the project was completed in 1996. The Berryessa Creek Project element proposed in the Corps' 1987 feasibility report consisted primarily of a trapezoidal concrete lining. This was not acceptable to the local community. The Corps and the District are currently preparing a General Reevaluation Report which involves reformulating a project which is more acceptable to the local community and more environmentally sensitive. Project features will include setback levees and floodwalls to preserve sensitive areas (minimizing the use of concrete), appropriate aquatic and riparian habitat restoration and fish passage, and sediment control structures to limit turbidity and protect water quality. The project will also accommodate the City of Milpitas' adopted trail master plan. Estimated total costs of the General Reevaluation Report work are $3.8 million, and should be completed in the summer of 2005.

Fiscal Year 2003 Funding.—$750,000 was appropriated in fiscal year 2003 for the Coyote/Berryessa Creek Flood Protection Project to continue the General Reevaluation Report and environmental documents update.

Fiscal Year 2004 Funding Recommendation.—Based on the continuing threat of significant flood damage from Berryessa Creek and the need to continue with the General Reevaluation Report, it is requested that the Congressional Committee support an appropriation add-on of $750,000 for the Berryessa Creek Flood Protection Project element of the Coyote/Berryessa Creek Project.

COYOTE CREEK WATERSHED STUDY

Background.—Coyote Creek drains Santa Clara County's largest watershed, an area of more than 320 square miles encompassing most of the eastern foothills, the City of Milpitas, and portions of the Cities of San Jose and Morgan Hill. It flows northward from Anderson Reservoir through more than 40 miles of rural and heavily urbanized areas and empties into south San Francisco Bay.

Prior to construction of Coyote and Anderson Reservoirs, flooding occurred in 1903, 1906, 1909, 1911, 1917, 1922, 1923, 1926, 1927, 1930 and 1931. Since 1950, the operation of the reservoirs has reduced the magnitude of flooding, although flooding is still a threat and did cause damages in 1982, 1983, 1986, 1995, and 1997. Significant areas of older homes in downtown San Jose and some major transportation corridors remain susceptible to extensive flooding. The federally-supported lower Coyote Creek Project (San Francisco Bay to Montague Expressway), which was completed in 1996, protected homes and businesses from storms which generated record runoff in the northern parts of San Jose and Milpitas.

The proposed Reconnaissance Study would evaluate the reaches upstream of the completed Federal flood protection works on lower Coyote Creek.

Objective of Study.—The objectives of the Reconnaissance Study are to investigate flood damages within the Coyote Creek Watershed; to identify potential alternatives for alleviating those damages which also minimize impacts on fishery and wildlife resources, provide opportunities for ecosystem restoration, provide for recreational opportunities; and to determine whether there is a Federal interest to proceed into the Feasibility Study Phase.

Study Authorization.—In May 2002, the House of Representatives Committee on Transportation and Infrastructure passed a resolution directing the Corps to ". . . review the report of the Chief of Engineers on Coyote and Berryessa Creeks . . . and other pertinent reports, to determine whether modifications of the recommendations contained therein are advisable in the interest of flood damage reduction, environmental restoration and protection, water conservation and supply, recreation, and other allied purposes . . ."

Fiscal Year 2003 Funding.—No Federal funding was received in fiscal year 2003.

Fiscal Year 2004 Funding Recommendation.—It is requested that the Congressional Committee support an appropriation add-on of $100,000 to initiate a multipurpose Reconnaissance Study within the Coyote Creek Watershed.

THOMPSON CREEK RESTORATION PROJECT

Background.—Thompson Creek, a tributary of Coyote Creek, flows through the city limits of San Jose, California, approximately 50 miles south of San Francisco. Historically, the creek was a naturally-meandering stream and a component of the Coyote Creek watershed. The watershed had extensive riparian and oak woodland habitat along numerous tributary stream corridors and upland savanna. Currently, these habitat types are restricted to thin sparse pockets in the Thompson Creek restoration project area.

Significant urban development over the last 20 years has modified the runoff characteristics of the stream resulting in significant degradation of the riparian habitat and stream channel. The existing habitats along Thompson Creek, riparian forest stands, are threatened by a bank destabilization and lowering of the water table. Recent large storm events (1995, 1997, and 1998) and the subsequent wet years in conjunction with rapid development in the upper watershed have resulted in a succession of high runoff events leading to rapid erosion. Today, down cutting and head cutting persist and the channel continues to incise and material is steadily eroded, leaving a deeply gullied and eroded channel. Further downstream sedimentation causes problems with flooding.

The upstream project limits start at the convergence of Yerba Buena and Thompson Creeks next to Evergreen Park. The downstream project limit is Quimby Road where Thompson creek has been modified as a flood control project. The project distance is approximately 3 miles.

Status.—In February 2000, the Santa Clara Valley Water District (District) initiated discussions with U.S. Army Corps of Engineers (Corps) for a study under the Corps' Section 206 Aquatic Ecosystem Restoration Program. Based on the project merits, the Corps began preparation of a Preliminary Restoration Plan (PRP) and

subsequent Project Management Plan (PMP). Approval of the PRP will lead to the development of a Detailed Project Report (DPR). The DPR will provide the information necessary to develop plans and specifications for the construction of the restoration project.

PROJECT TIMELINE

—Request Federal assistance under Sec. 206 Aquatic Ecosystem Restoration Program—Feb 2002
—Initiate Study—Mar 2003
—Public Scoping Meeting and Local Involvement—Apr 2003
—Final Detailed Project Report to South Pacific Division of Corps—May 2004
—Initiate Plans and Specifications—July 2004
—Complete Plans and Specifications—Oct 2004
—Project Cooperation Agreement signed—Dec 2004
—Certification of Real Estate—Mar 2005
—Advertise Construction Contract—May 2005
—Award Construction Contract—July 2005
—Construction Start—Sept 2005
—Complete Physical Construction—Dec 2006

Fiscal Year 2003 Funding.—$10,000 was received in the fiscal year 2003 Section 206 appropriation to complete the PRP.

Fiscal Year 2004 Funding Recommendation.—Based upon the need to continue the feasibility study to provide critical ecosystem restoration for Thompson Creek, it is requested that the Congressional Committee support an earmark of $200,000 within the Section 206 Aquatic Ecosystem Restoration Program.

SAN FRANCISQUITO CREEK WATERSHED PROJECT

Background.—The San Francisquito Creek watershed comprises 45 square miles and 70 miles of creek system. The creek mainstem flows through five cities and two counties, from Searsville Lake, belonging to Stanford University, to the San Francisco Bay at the boundary of East Palo Alto and Palo Alto. Here it forms the boundary between Santa Clara and San Mateo counties, California and separates the cities of Palo Alto from East Palo Alto and Menlo Park. The upper watershed tributaries are within the boundaries of Portola Valley and Woodside townships. The creek flows through residential and commercial properties, a biological preserve, and Stanford University campus. It interfaces with regional and State transportation systems in the mainstem area, by flowing under two freeways and the regional commuter rail system. The local communities have formed a Joint Powers Authority in 1999 to cooperatively manage flood and restoration efforts. San Francisquito Creek is one of the last natural continuous riparian corridors on the San Francisco Peninsula and home to one of the last remaining viable steelhead trout runs. It is a highly valued resource by all communities. Bank overflow has occurred eleven times since 1907 with record flooding in February 1998. The riparian habitat and urban setting offer unique opportunities for a multi objective project addressing flood protection, habitat, water quality, and recreation.

Flooding History.—The creeks mainstem has a flooding frequency of approximately once in 11 years. It is estimated that over $155 million in damages could occur in Santa Clara and San Mateo counties from a 1 percent flood, affecting 4,850 home and businesses. (1998 Reconnaissance Investigation Report, San Francisquito Creek Coordinated Resource Management and Planning Organization, a local stakeholder group). Significant areas of Palo Alto flooded in December 1955, inundating about 1,200 acres of commercial and residential property and about 70 acres of agricultural land. April 1958 storms caused a levee failure downstream of Highway 101, flooding Palo Alto Airport, the city landfill, and the golf course up to 4 feet deep. Overflow in 1982 caused extensive damage to private and public property. The flood of record occurred on February 3, 1998, when overflow from numerous locations caused severe, record consequences with more than $28 million in damages, based on a March 1999 U.S. Army Corps of Engineers (Corps) Survey Report. More than 1,100 homes were flooded in Palo Alto, 500 people were evacuated in East Palo Alto, and the major commute and transportation artery, Highway 101, was closed. This report recommended that the Corps proceed to a Section 905(b), expedited reconnaissance phase, with study costs to be federally funded and not to exceed $100,000.

Status.—Active citizenry are anxious to avoid a repeat of February 1998 flood. Numerous watershed based studies have been conducted by the Corps, the Santa Clara Valley Water District, Stanford University, and the San Mateo County Flood Control District. Grassroots, consensus-based Coordinated Resource Management and Planning Organization, now called the San Francisquito Watershed Council,

has united stakeholders including local and State agencies, citizens, flood victims, developers, and environmental activists for over 10 years. The San Francisquito Creek Joint Powers Authority was formed in 1999 to coordinate creek activities with five member agencies and two associate members. The Joint Powers Authority Board has agreed to be the local sponsor for a Corps project and received Congressional authorization for a Corps reconnaissance study in May 2002. The JPA is also in the process of initiating a Section 205 Continuing Authorities Program project with the San Francisco District of the Corps for fiscal year 2003.

Fiscal Year 2003 Funding.—No Federal funding was received in fiscal year 2003.

Fiscal Year 2004 Funding Recommendation.—It is requested the Congressional Committee support the $100,000 in the Administration's fiscal year 2004 budget for the San Francisquito Creek Watershed.

SOUTH SAN FRANCISCO BAY SHORELINE STUDY

Background.—Congressional passage of Public Law 94–587, the Water Resources Development Act of 1976, originally authorized the South San Francisco Bay Shoreline Project. The Santa Clara Valley Water District (District) is one of the project sponsors. The Corps' 1984 reconnaissance study included Santa Clara County, and proposed $15 million to $20 million of improvements to protect portions of the Santa Clara County cities of Palo Alto, Sunnyvale, and San Jose. In 1990, the U.S. Army Corps of Engineers (Corps) concluded that levee failure potential was low and suspended the project until adequate economic benefits could be demonstrated.

The District is concerned because considerable development has occurred in the project area since the project's suspension in 1990. Many major corporations have since located within Silicon Valley's Golden Triangle, lying within and adjacent to the tidal flood zone. Now, damages from a 1 percent high tide would far exceed the $34.5 million estimated in 1981, disrupting business operations, infrastructure, and residences. Also, land subsidence of up to 6 feet near Alviso, as well as the structural uncertainty of existing salt pond levees, increases the potential for tidal flooding in Santa Clara County. When high tides coincide with wind generated waves, levee overtopping occurs.

Project Synopsis.—The Corps' 1984 study assumed no change in levee maintenance activities and hydrology, and identified overtopping, not erosion or levee failure, as the most likely mode of tidal flooding. The Corps attributed low potential benefits to levee improvements because existing non-Federal, non-engineered levees have historically withstood overtopping without failure.

The District believes that the low incidence of levee failure is due to luck and diligent private and public maintenance programs—programs that may not continue under the present regulatory environment, restricted funding, and new property ownership. The trend toward tougher regulatory controls restricts levee maintenance, reducing the economic feasibility of continuing historic levels of maintenance activities. Lower maintenance levels would leave these levees and surrounding communities vulnerable to significant damages.

Public acquisition of approximately 13,000 acres of south bay salt ponds was completed in early March 2003. The proposed restoration of these ponds to tidal marsh will significantly alter the hydrologic regime, which was assumed to be constant in the Corps' study. Adequate tidal flood protection is critical to the success of the restoration project, providing an opportunity for multi-objective watershed planning in partnership with the California Coastal Conservancy, the lead agency on the restoration project.

Since 1990, Corps staff in Washington, DC, has attempted unsuccessfully to resolve the differences in their standards for freeboard and levee stability with the Federal Emergency Management Agency. The 1997 levee failures and floods in California's Central Valley elevated concern about the integrity of Bay Area levees. The Corps recognized the potential Federal interest and requested funding to reopen the reconnaissance study in fiscal years 1998 and 1999. No funds were included in the final congressional authorizations. The U.S. House of Representatives Committee on Transportation and Infrastructure passed a resolution in July 2002 directing the Corps to review the results of this study.

Fiscal Year 2003 Funding.—No Federal appropriation was authorized in fiscal year 2003.

Fiscal Year 2004 Funding Request.—It is requested that the Congressional Committee support an appropriation add-on of $100,000 for the South San Francisco Bay Shoreline Study to conduct a Reconnaissance Investigation.

PAJARO RIVER WATERSHED STUDY

Background.—Pajaro River flows into the Pacific Ocean at Monterey Bay, about 75 miles south of San Francisco. The drainage area encompasses 1,300 square miles in Santa Clara, San Benito, Monterey, and Santa Cruz counties. Potential flood damage reduction solutions will require cooperation between four counties and four water/flood management districts. There is critical habitat for endangered wildlife and fisheries throughout the basin. Six separate flood events have occurred on the Pajaro River in the past half century. Severe property damage in Monterey and Santa Cruz counties resulted from floods in 1995, 1997, and 1998. Recent flood events have resulted in litigation claims for damages approaching $50 million. $20 Million in U.S. Army Corps of Engineers (Corps) flood fight funds have been expended in recent years.

Status.—Two separate Corps activities are taking place in the watershed. The first activity is a Corps reconnaissance study authorized by a House Resolution in May 1996 to address the need for flood protection and water quality improvements, ecosystem restoration, and other related issues. The second activity is a General Revaluation Report initiated in response to claims by Santa Cruz and Monterey Counties that the 13 mile levee project constructed in 1949 through agricultural areas and the city of Watsonville is deficient. The reconnaissance study on the entire watershed has been initiated by the San Francisco District of the Corps and will be complete in fiscal year 2002. Watershed Stakeholders are working cooperatively to support the Corps' reconnaissance study, which will provide information to help reach an understanding and agreement about the background and facts of the watershed situation.

Local Flood Prevention Authority.—Legislation passed by the State of California (Assembly Bill 807) in 1999 titled "The Pajaro River Watershed Flood Prevention Authority Act" mandated that a Flood Prevention Authority be formed by June 30, 2000. The purpose of the Flood Prevention Authority is "to provide the leadership necessary to . . . ensure the human, economic, and environmental resources of the watershed are preserved, protected, and enhanced in terms of watershed management and flood protection." The Flood Prevention Authority was formed in July 2000 and consists of representatives from the Counties of Monterey, San Benito, Santa Clara, and Santa Cruz, Zone 7 Flood Control District, Monterey County Water Resources Agency, San Benito County Water District, and the Santa Clara Valley Water District. The Flood Prevention Authority Board sent a letter of intent to cost share a feasibility study of the Pajaro River Watershed to the Corps in September 2001.

Fiscal Year 2003 Funding.—$100,000 was authorized in fiscal year 2003 for the Pajaro Watershed Reconnaissance Study.

Fiscal Year 2004 Funding Recommendation.—It is requested that the Congressional Committee support the $100,000 in the Administration's fiscal year 2004 budget for the Pajaro River Watershed Study.

SAN JOSE AREA WATER RECLAMATION AND REUSE PROGRAM
(SOUTH BAY WATER RECYCLING PROGRAM)

Background.—The San Jose Area Water Reclamation and Reuse Program, also known as the South Bay Water Recycling Program, will allow the City of San Jose and its tributary agencies of the San Jose/Santa Clara Water Pollution Control Plant to protect endangered species habitat, meet receiving water quality standards, supplement Santa Clara County water supplies, and comply with a mandate from the U.S. Environmental Protection Agency and the California Water Resources Control Board to reduce wastewater discharges into San Francisco Bay.

The Santa Clara Valley Water District (District) collaborated with the City of San Jose to build the first phase of the recycled water system by providing financial support and technical assistance, as well as coordination with local water retailers. The design, construction, construction administration, and inspection of the program's transmission pipeline and Milpitas 1A Pipeline was performed by the District under contract to the City of San Jose.

Status.—The City of San Jose is the program sponsor for Phase 1, consisting of almost 60 miles of transmission and distribution pipelines, pump stations, and reservoirs. Completed at a cost of $140 million, Phase 1 began partial operation in October 1997. Peak operation occurred in the summer of 2002 with average deliveries of 10 million gallons per day of recycled water. The system now serves over 400 customers and delivers over 6,000 acre-feet of recycled water per year.

Phase 2 is now underway. In June 2001, San Jose approved an $82.5 million expansion of the program. The expansion includes additional pipeline extensions into the cities of Santa Clara and Milpitas, a major pipeline extension into Coyote Valley

in south San Jose, and reliability improvements of added reservoirs and pump stations. The District and the City of San Jose executed an agreement in February 2002 to cost share on the pipeline into Coyote Valley and discuss a long-term partnership agreement on the entire system. Phase 2's near-term objective is to increase deliveries by the year 2010 to 15,000 acre-feet per year.

Funding.—In 1992, Public Law 102–575 authorized the Bureau of Reclamation to work with the City of San Jose and the District to plan, design, and build demonstration and permanent facilities for reclaiming and reusing water in the San Jose metropolitan service area. The City of San Jose reached an agreement with the Bureau of Reclamation to cover 25 percent of Phase 1's costs, or approximately $35 million; however, Federal appropriations have not reached the authorized amount. To date, the program has received $26 million of the $35 million authorization.

Fiscal Year 2003 Funding.—$3 million was appropriated in fiscal year 2003 for project construction.

Fiscal Year 2004 Funding Recommendation.—It is requested that the Congressional Committee support an appropriation add-on of $9 million, in addition to the $1 million in the Administration's fiscal year 2004 budget, for a total of $10 million to fund the work.

CALFED BAY-DELTA PROGRAM

Background.—In an average year, half of Santa Clara County's water supply is imported from the San Francisco Bay/Sacramento-San Joaquin Delta estuary (Bay-Delta) watersheds through three water projects: The State Water Project, the Federal Central Valley Project, and San Francisco's Hetch Hetchy Project. In conjunction with locally-developed water, this water supply supports more than 1.7 million residents in Santa Clara County and the most important high-tech center in the world. In average to wet years, there is enough water to meet the county's long-term needs. In dry years, however, the county could face a water supply shortage of as much as 100,000 acre-feet per year, or roughly 20 percent of the expected demand. In addition to shortages due to hydrologic variations, the county's imported supplies have been reduced due to regulatory restrictions placed on the operation of the State and Federal water projects.

There are also water quality problems associated with using Bay-Delta water as a drinking water supply. Organic materials and pollutants discharged into the Delta, together with salt water mixing in from San Francisco Bay, have the potential to create disinfection-by-products that are carcinogenic and pose reproductive health concerns.

Santa Clara County's imported supplies are also vulnerable to extended outages due to catastrophic failures such as major earthquakes and flooding. As demonstrated by the 1997 flooding in Central Valley, the levee systems can fail and the water quality at the water project intakes in the Delta can be degraded to such an extent that the projects cannot pump from the Delta.

Project Synopsis.—The CALFED Bay-Delta Program is an unprecedented, cooperative effort among Federal, State, and local agencies to restore the Bay-Delta. With input from urban, agricultural, environmental, fishing, and business interests, and the general public, CALFED has developed a comprehensive, long-term plan to address ecosystem and water management issues in the Bay-Delta.

Restoring the Bay-Delta ecosystem is important not only because of its significance as an environmental resource, but also because failing to do so will stall efforts to improve water supply reliability and water quality for millions of Californians and the State's trillion dollar economy and job base.

The June 2000 Framework for Action and the August 2000 Record of Decision/Certification contain a balanced package of actions to restore ecosystem health, improve water supply reliability and water quality. It is critical that Federal funding be provided to implement these actions in the coming years.

Fiscal Year 2003 Funding.—$23 million was appropriated for CALFED activities under the Bureau of Reclamation's budget in fiscal year 2003.

Fiscal Year 2004 Funding Recommendation.—It is requested that the Committee support an appropriation add-on of $35 million, in addition to the $15 million in the Administration's fiscal year 2004 budget, for a total of $50 million for the CALFED Program.

PREPARED STATEMENT OF THE RED RIVER VALLEY ASSOCIATION

INTRODUCTION

The Red River Valley Association is a voluntary group of citizens bonded 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 78 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, Municipalities and other local governmental entities in developing the area along the Red River.

The Resolutions contained herein were adopted by the Association during its 78th Annual Meeting in Shreveport, Louisiana on February 20, 2003, 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
—Environmental Restoration
—Flood Control
—Bank Stabilization
—A Clean Water Supply for Municipal, Industrial and Agricultural Uses
—Hydroelectric Power Generation
—Recreation
—Navigation

The Red River Valley Association is aware of the constraints on the Federal budget, and has kept those constraints 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 the 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.

RRVA TESTIMONY

Mr. Chairman and members of the Committee, I am Wayne Dowd, and pleased to represent the Red River Valley Association as its President. 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.

Even though the President's budget included $4.194 billion for civil works programs this is $406 million (8.8 percent) less than appropriated in fiscal year 2003. Again, the Corps took the biggest reduction than any of the other major Federal agencies. This does not come close to the real needs of our nation. A more realistic funding level to meet the requirements for continuing the existing needs of the civil works programs is $5.5 billion. The traditional programs, inland waterways and flood protection remain at the low, unacceptable level as in past years. These projects are the backbone to our Nation's infrastructure for waterways, flood control and water supply. We remind you that civil works projects are a true "jobs program" in that 100 percent of project construction is contracted to the private sector, as is much of the architect and engineer work. Not only do these funds provide jobs, but provide economic development opportunities for our communities to grow and prosper.

It has come to our attention that there are some in the Administration who are proposing to dismantle the civil works functions and put them into other Federal agencies. Environmental and regulatory functions might go to EPA or Department of the Interior and Waterways may go to the Department of Transportation. This is not a good idea for our Nation. Placing the regulatory and environmental missions in one of those agencies puts it into a "one agenda", single focused agency. The Corps of Engineers is the best agency to administer the regulatory program, because they have all disciplines within their organization, to include biologists, engineers, economists, etc. When the Corps of Engineers reviews environmental issues we are best assured of a balanced outcome that would best serve the people and our ecosystems.

Our concern with placing the inland waterways under Department of Transportation is that they will not receive the same attention as the more popular highways and airports. The facts are that one barge, 1,500 tons of commodities, is equivalent to 15 jumbo rail hoppers or 58 tractor-trailer trucks. According to EPA, towboats emit 35 to 60 percent fewer pollutants than locomotives or trucks, per ton of cargo moved. This is why we should not dilute the importance of our waterways. We

should increase the importance of waterborne transportation due to its efficiency, safety and being environmentally friendly. The RRVA does not support any efforts to dissolve the Corps of Engineer Civil Works functions into any other Federal agency.

We do not support any efforts to increase the benefit to cost ratio for projects above 1.0 and we do not support increasing the local sponsor's cost sharing requirements. This is not "Corps reform" it is an initiative to eliminate the civil works program. We do support true reform that would make civil works projects less expensive and faster to complete. Corps reform should make the Corps of Engineers more efficient, cheaper and faster in the execution of civil works studies and completion of projects not eliminate the program.

I would now like to comment on our specific requests for the future economic well being of the citizens residing in the four State Red River Basin regions.

Navigation.—The J. Bennett Johnston Waterway is living up to the expectations of the benefits projected. We are extremely proud of our public ports, municipalities and State agencies that have created this success. New opportunities were announced in calendar year 2002 at each of the ports that will increase the annual tonnage. You are reminded that the Waterway is not complete, 12 percent remains to be constructed, $242 million. We appreciate Congress's appropriation level in fiscal year 2003; however, in order to keep the Waterway safe and reliable we must continue at a funding level closer to $25 million.

The RRVA formed a Navigation Committee for industry, the Corps of Engineers and Coast Guard to partner in making our Waterway a success. In calendar year 2002 we succeeded in getting electronic charts completed and they are now in use. Permanent channel markers are being put in place and will be completed in calendar year 2003. Both of these initiatives will provide all the aids to navigation necessary to insure safe and efficient navigation, especially during high water events, when commercial operations have ceased in past years.

An issue we need to address is the current 9 foot draft authorized for the J. Bennett Johnston Waterway. Our Waterway feeds into the Mississippi River, Atchafalaya River and Gulf Inter-coastal Canal, which all accommodate 12 foot draft barges. The Atchafalaya River and GIC are both authorized 12 foot channels. This would allow additional cargo capacity, per barge, which will greatly increase the efficiency of our Waterway and reduce transportation rates. We request that the Corps conduct a reconnaissance study, to evaluate this proposal, at a cost of $100,000.

The feasibility study to continue navigation from Shreveport-Bossier City, Louisiana into the State of Arkansas is on going. We appreciate that Congress appropriated adequate funding to complete this study in fiscal year 2003. There is great optimism that the study will recommend a favorable project. This region of SW Arkansas and NE Texas continues to suffer major unemployment and the navigation project, although not the total solution will help revitalize the economy. We request funding to initiate planning, engineering and design, PED.

Bank Stabilization.—One of the most important, continuing programs, on the Red River is bank stabilization in Arkansas and North Louisiana. We must stop the loss of valuable farmland that erodes down the river and interferes with the navigation channel. In addition to the loss of farmland is the threat to public utilities such as roads, electric power lines and bridges; as well as increased dredging cost in the navigable waterway. These bank stabilization projects are compatible with subsequent navigation and we urge that they be continued in those locations designated by the Corps of Engineers to be the areas of highest priority. We appreciated the Congressional funding in fiscal year 2003 and request you fund this project at a level of $10 million.

Flood Control.—You will recall that in 1990 major areas of northeast Texas, Southwest Arkansas and the entire length of the Red River in Louisiana were ravaged by the worst flooding to hit the region since 1945 and 1957. More than 700,000 acres were flooded with total damages estimated at $20.4 million. However, it could have been much worse. The Corps of Engineers estimates that without the flood control measure authorized by Congress over the past several decades an additional 1.3 million acres would have been flooded with an estimated $330 million in additional flood damage to agriculture and urban developments.

We continue to consider flood control a major objective and request you continue funding the levee rehabilitation projects ongoing in Arkansas. Five of eleven levee sections have been completed and brought to Federal standards. Appropriations of $4.750 million will construct two more levee sections in Lafayette County, AR.

The levees in Louisiana have been incorporated into the Federal system; however, they do not meet current construction standards due to their age. These levees do not have a gravel surface roadway, threatening their integrity during times of flood-

ing. It is essential for personnel to traverse the levees during a flood to inspect them for problems. Without the gravel surface the vehicles used cause rutting and this can create conditions for the levees to fail. Gravel surfaces will insure inspection personnel can check the levees during the saturated conditions of a flood. Funding has been appropriated in fiscal year 2002 and fiscal year 2003. Approximately 50 miles of levees in the Natchitoches Levee District will be completed this year. We request $2 million to continue this important project in other parishes.

Clean Water.—Nearly 3,500 tons of natural salts, primarily sodium chloride, enter the upper reaches of the Red River each day, rendering downstream waters unusable for most purposes. The Truscott Brine Lake project, which is located on the South Fork of the Wichita River in King and Knox Counties, Texas became operational in 1987. An independent panel of experts found that the project not only continues to perform beyond design expectations in providing cleaner water, but also has an exceptionally favorable cost benefit ratio. In fiscal year 1995 $16 million dollars was appropriated by the Administration, to accelerate engineering design, real estate acquisition and initiate construction of the Crowell Brine Dam, Area VII and Area IX.

Due to a conflict over environmental issues, raised by the U.S. Fish and Wildlife Service, completion of the SFEIS was delayed pending further study to determine the extent of possible impacts to fish and wildlife, their habitats and biological communities along the Red River and Lake Texoma. In an effort to resolve these issues and insure that no harmful impact to the environment or ecosystems would result, a comprehensive environmental and ecological monitoring program was implemented. It evaluates the actual impacts of reducing chloride concentrations within the Red River watershed. This base line data is crucial to understanding the ecosystem of the Red River basin west of Lake Texoma and funding for this must continue.

The Assistant Secretary of the Army (Civil Works), in October 1998, agreed to support a re-evaluation of the Wichita River Basin tributary of the project. The re-evaluation report will be completed in fiscal year 2003. Completion of this project will reclaim Lake Kemp as a usable water source for the City of Wichita Falls and the region. This project will provide improved water quality throughout the four States of the Red River providing the opportunity to use surface water and reduce dependency on ground water. We request appropriations of $2,000,000 to continue this important environmental monitoring and to initiate construction of the Wichita River control features.

Water Supply.—Northwest Texas has been overrun with non-native species of brush and mesquite. It now dominates millions of acres of rangelands and has negatively impacted water runoff. Studies have indicated that brush management could increase runoff by as much as 30 percent to 40 percent. This would be of great value in opportunities for more surface water use and less dependency on ground water. Other benefits include an ecological diversity of plant and animal species, range fire control and cattle production. A $100,000 reconnaissance study would determine if there is a Federal interest and what magnitude these benefits would be.

Lake Kemp, just west of Wichita Falls, TX, is a water supply for the needs of this region. Invasion of non-native brush and siltation have threatened the capacity of the lake to serve its intended functions. A $100,000 reconnaissance study would investigate these issues and determine if there are any potential solutions.

Operation & Maintenance.—We appreciate the support of your subcommittee to support navigation to Shreveport/Bossier City, which is now providing a catalyst to our industrial base, creating jobs and providing economic growth. We request that O&M funding levels remain at the expressed Corps capability to maintain a safe, reliable and efficient transportation system.

It is very disturbing to see the Administration suggest that 50 percent of O&M costs be funded from the Inland Waterway Trust Fund (IWTF). The law establishing this trust fund does not provide for it to be used for O&M activities and the trust fund would be depleted in less than 5 years. What is more troubling is that once this is allowed the situation exists to increase the existing $.20 per gallon fuel tax on waterway industries to $1.00 per gallon to cover 100 percent of the O&M costs. This additional $.80 would drastically increase shipping rates devastating a young waterway system such as ours. We do not believe there can be a "temporary" use of this fund. Once the trust fund is used for O&M purposes it will be very difficult to change.

It is our understanding that the criterion used to determine "low use" waterways was set at 5 billion "average ton-miles". This is the wrong criteria and methodology to use. Navigation projects are justified using "system ton-miles". "Average ton-miles" is measured from point of origin to the mouth of the river, while "system ton-miles" is measured from point of origin to destination of cargo, which makes sense.

A more important issue is that ton-miles is only one factor in determining success. Our Nation's waterways were built to reduce transportation cost and they do that without moving one ton of cargo. "Water Compelled Rates" is the term used for "competition". Rail rates have dropped to match waterborne rates throughout the Red River Valley. Many industries have experienced great transportation savings without having to use the waterway. If our waterway were closed the rail rates would immediately increase. This is one example on why ton-miles cannot be the sole determining factor of success.

Full O&M capability levels are not only important for our Waterway project but for all our Corps projects and flood control lakes. The backlog of critical maintenance only becomes worse and more expensive with time. We urge you to appropriate funding to address this serious issue at the expressed full Corps capability. The "Summary of Fiscal Year 2004 Requests", following this testimony, lists our major O&M projects and the level needed to address this issue.

The Continuing Authorities Program (CAP) has never been fully funded to its authorized amount. This has been an outstanding program providing small, cost shared projects within our communities. We believe this program should be funded at its full-authorized amount.

We are sincerely grateful to you for the past support you have provided our various projects. We hope that we can count on you again to fund our needs and complete the projects started that will help us diversify our economy and create the jobs so badly needed by our citizens. We have included a summary of our requests for easy reference.

Thank you for the opportunity to present this testimony and project details of the Red River Valley Association on behalf of the industries, organizations, municipalities and citizens we represent throughout the four State Red River Valley region. We believe that any Federal monies spent on civil work projects are truly investments in our future and will return several times the original investment in benefits that will accrue back to the Federal Government.

GRANT DISCLOSURE

The Red River Valley Association has not received any Federal grant, sub grant or contract during the current fiscal year or either of the two previous fiscal years.

SUMMARY OF FISCAL YEAR 2004 REQUESTS

[NOTE: PROJECTS ARE NOT IN ANY ORDER OF PRIORITY.]

General Investigation Studies (GI)

Red River Navigation, SW Arkansas.—This is a feasibility study initiated on March 24, 1999 to investigate the potential to extend navigation from Shreveport/Bossier, LA to Index, AR. To date $2,955,000 has been appropriated for this study and matched by the State of Arkansas. These funds will complete the study in fiscal year 2003. The initial study results indicate the probability that a project will be recommended. Funds are requested in fiscal year 2004 to initiate pre-construction, engineering and design (PED). Total fiscal year 2004 request—$400,000.

Southeast Oklahoma Water Resource Study.—Conduct a reconnaissance study to evaluate the water resources in the study area. The study area includes the Kiamichi River basin and other tributaries of the Red River. A comprehensive plan will be developed to determine how best to conserve and utilize this water. In fiscal year 2003 $100,000 was received for this study. This is a complex 11-year study of ecosystem restoration issues and the Oklahoma Water Resource Board has signed on as the local sponsor. Total fiscal year 2004 request—$50,000.

Southwest Arkansas Study.—Conduct a reconnaissance report in the four county areas of the Red River/Little River basins. Included would be the four Corps lakes; DeQueen, Dierks, Gillham and Millwood. The watershed study would evaluate; flooding, irrigation, fish and wildlife habitat, water quality, recreation and water releases for navigation. The State of Arkansas has expressed an interest in cost sharing the feasibility study. Funding of $100,000 was received in fiscal year 2003 to initiate the study. Total fiscal year 2004 request—$200,000.

Washita River Basin, OK.—Under Public Law 534 NRCS, Department of Agriculture, constructed approximately 1,100 small flood control structures in the Washita River basin above Lake Texoma. These structures have significantly reduced the sediment flow into Lake Texoma; however, they are reaching their 50-year life expectancy. This study will assist NRCS in determining how to extend the life of the structures, which have had a great positive impact to the water quality, flood storage capacity and ecosystem of Lake Texoma. Funding of $100,000 was re-

ceived in fiscal year 2003 to initiate the study. Total fiscal year 2004 request—$100,000.

Mountain Fork River Watershed, OK & AR, Reconnaissance Study.—The study area includes 754 square miles above Broken Bow Lake, OK. Broken Bow Lake was justified for flood control, hydropower, water supply, recreation and fish and wildlife purposes. In recent years the water quality of Broken Bow Lake have deteriorated. This study will investigate the impact of the up stream watershed nutrient and sediment loading to the lake. Funding of $100,000 was received in fiscal year 2003 to initiate the study. Total fiscal year 2004 request—$100,000.

J. Bennett Johnston Waterway, LA, 12 Foot Channel Reconnaissance Study.—The waterway flows directly into the Atchafalaya River and then to the Gulf Inter-coastal Waterway, both have authorized 12 foot channels. Except under extreme low water conditions the Mississippi River accommodates barges of 12 foot draft. It is inefficient on industry to have to "special load" barges destined for the Red River to 9 feet when all other barges are loaded to 12 feet. More important the added cargo per barge (one-third more) will have a dramatic impact on reducing the water-borne rates for the Waterway, making it more competitive. Total fiscal year 2004 request—$100,000.

Red River Brush Management Above Denison Dam, OK & TX, Reconnaissance Study.—Over the past 200 years invasive and non-native brush species have taken over this region. These species, especially mesquite and salt cedar, absorbs enormous amount of water. Brush control could yield as much as 30 percent to 40 percent increase in rangeland runoff. Other benefits include an ecological diversity of plant and animal species, range fire control and cattle production. This is an ecosystem restoration study. Total fiscal year 2004 request—$100,000.

Wichita River Basin above Lake Kemp Dam, TX, Reconnaissance Report.—The scope of this study is to investigate creating riparian eco-system features utilizing sediment depositions in the upper reaches of Lake Kemp, while reducing deposits into Lake Kemp. The current sediment deposits are impacting environmental functions of the Lake as well as reducing storage capacity. Opportunities exist to construct wetlands to improve ecological functions. Total fiscal year 2004 request—$100,000.

Red River Waterway, Index Arkansas to Denison Dam, TX.—Investigate the restoration of natural resources, such as wetlands, bottomland hardwoods and riparian habitat along approximately 245 river miles. Various types of bank stabilization would be considered to protect environmental zones and corridors. $63,000 was allocated in fiscal year 2002. This study is waiting for a local sponsor to be identified. Total fiscal year 2004 request—$0.

Bois D'Arc Creek, Bonham, TX.—This is a reconnaissance study to address the flooding on 16,100 acres on the lower two-thirds of the basin. The towns of Whitewright and Bonham are within the basin. A dam was determined feasible in the 1960's; however, there was no local sponsor. Currently there are local sponsors interested in this project. In fiscal year 2002 $126,000 was received to initiate this study. The total study cost will be $1,270,000, Federal funds and $1,170,000 local sponsor costs. This study is waiting on funding from the local sponsor, Fannin County, TX. Total fiscal year 2004 request—$0.

Construction General (CG)

Red River Waterway Project—a. J. Bennett Johnston Waterway, LA.—Seven projects will be completed or awarded in fiscal year 2003 as well as recreation facilities, the regional visitor center and continued mitigation. These ongoing projects will be completed using the $13.7 million budgeted for fiscal year 2004. Additional funds could be used for new projects, which include; Westdale Realignment ($2,500,000), Pump Bayou Revetment ($500,000), Fausse/Natchitoches/Clarence Reinforcement ($1,000,000), Scott Realignment ($2,500,000), Lumbra Dikes ($2,000,000), Lindy C. Boggs Barrier Upgrade ($2,000,000), continued mitigation ($1,300,000), Shell Point Drainage Structure ($1,000,000), Hammel/Carroll Revetments ($2,000,000) and Teague Parkway Revetment ($500,000). Total fiscal year 2004 request—$29,000,000.

b. Index, AR to Denison Dam, TX; Bendway Weir Demonstration Project.—This stretch of the Red River experiences tremendous bank caving. A demonstration project using this Bendway Weir technique is needed to determine if this method will work in the Red River. The U.S. Highway 271 Bridge was selected due to the river threatening this infrastructure and accessibility for evaluation. The project will include underwater weirs 6 miles upstream and 5.5 miles downstream of the bridge. There is great environmental enhancement potential with this project. $765,000 has been appropriated to date and additional funds are required to develop

the PCA and reevaluate the design. A local sponsor is still being secured. Total fiscal year 2004 request—$250,000.

Red River Chloride Control Project (Wichita River Basin), TX.—A reevaluation for the Wichita River Basin features had been ongoing using reprogrammed funds. The office of the ASA (CW) has supported this project and funds were appropriated in fiscal year 2003. The re-evaluation report will be completed in fiscal year 2003. Funds are needed for design, plans and specifications and to continue environmental monitoring activities. Total fiscal year 2004 request—$2,000,000.

Red River Below Denison Dam Levees & Bank Stabilization—a. Levee Rehabilitation, AR—Funds are required to complete construction of Levee Item #5 initiated in fiscal year 2001, initiate construction of Levee Item #9 and initiate design for follow on Levee Item #6. Total fiscal year 2004 request—$4,750,000.

b. Bowie County Levee, TX.—The local sponsor requested the "locally preferred option", which was authorized for construction. In fiscal year 2003 $4,000,000 was appropriated to initiate this project. The local sponsor is willing to execute a PCA and initiate real estate activities in fiscal year 2003. Total fiscal year 2004 request—$500,000.

c. Upgrade Levees, LA.—Approximately 220 miles of levees in Louisiana do not have gravel surfaces on top of the levee, therefore do not meet Federal standards. These levees are in the Federal system and must be upgraded. This surface is required for safe inspections of the levees during times of floods and to maintain the integrity of the levee. The total project can be completed in four phases over 4 years. $1,000,000 was appropriated in fiscal year 2003 and approximately 50 miles of levee have been upgraded in the Natchitoches Levee District, LA. Total fiscal year 2004 request—$2,250,000.

d. Upgrade Levees, LA.—Many structures, through the Levee system in Louisiana, have deteriorated to a condition that threatens the integrity of the levees themselves. A project must be undertaken to systematically upgrade these structures. Total fiscal year 2004 request—$600,000.

Red River Emergency Bank Protection, Arkansas.—Funds are required to complete construction of Bois D'Arc Revetment ($4,200,000) initiated in fiscal year 2002; and Dickson Revetment ($5,800,000) initiated in fiscal year 2003. These funds would also complete the design on Finn Revetment Phase II. These are important projects for protection of valuable farmlands and to maintain the existing alignment of the river in advance of navigation. Total fiscal year 2004 request—$10,000,000.

Little River County (Ogden Levee), AR.—A reconnaissance report in 1991 determined that flood control levees were justified along Little River. The project sponsor, Arkansas Soil and Water Conservation Commission requests that the project proceed directly to PED, without a cost shared feasibility study. We request language and funding to accomplish this. Total fiscal year 2004 request—$200,000.

McKinney Bayou.—The Reconnaissance Report showed a favorable project to clear and reshape this drainage canal. Presently, the local sponsor is unable to cost share continuation of this project due to the extremely high cost of mitigation. Total fiscal year 2004 request—$0.

Big Cypress Valley Watershed (Section 1135).—The main focus of this study is within the City of Jefferson, Texas. Informal coordination with Jefferson has showed their continued support and intent to participate. Their total share is estimated to be $601,600 with annual O&M costs of approximately $21,000. In fiscal year 2001 $120,000 was appropriated to initiate this project. No funds can be expended until completion of the Master Plan and acquisition of land by the local sponsor. Total fiscal year 2004 request—$0.

Millwood Lake, Grassy Lake, AR (Section 1135).—An environmental restoration project of 15,000 acres of wetlands located downstream from Millwood Dam. The Dam interrupted the flow to these wetlands and this project would be a water delivery system to include restoring flow to a 400-acre pristine wetland area. It is private land; however, there is a national interest for migratory birds. A potential sponsor is the Arkansas Soil & Water Conservation Commission. Total fiscal year 2004 request—$200,000.

East/West Burns Run Public Use Area, Park Modernization, Lake Texoma, OK.—Modernization of these facilities will bring them up to standards to serve the high volume of users experienced each year. The Lake Texoma region economy depends mostly on recreation. This facility will ensure continued success, but also increase the economic potential for the area. Total fiscal year 2004 request—$6,000,000.

Operation & Maintenance (O&M)

Red River Waterway.—The President's budget is usually sufficient to only operate the waterway and perform preventive maintenance. There are major, unfunded backlog maintenance items that must be accomplished. These items include inspec-

tion and repair of lock & dam stop logs, repairs to tainter gate diagonal bracing at Lock #3 and revetment repairs. The President's budget included no funding for backlog maintenance. Total fiscal year 2004 request—$19,900,000.

Flood Control Lakes.—There are nine major flood control lakes in the Red River Valley, plus the Truscott Brine Reservoir. These lakes have served to prevent hundreds of millions of dollars of damage over the past 50 years. However, they are getting to the age where maintenance cannot be differed any longer. Backlog maintenance items include repair to flood gates, powerhouse maintenance, dam structures and recreation facilities. If upgrades are not made at recreation facilities they may have to be closed due to safety concerns to the public. Following is a list of the lakes and our fiscal year 2004 requests for each.

Flood Control Lake	Fiscal Year 2004 Request
Denison Dam, Lake Texoma, TX	$8,643,000
Hugo Lake, OK	3,138,000
Broken Bow Lake, OK	1,894,000
Pat Mayse Lake, TX	994,000
Warrika Lake, OK	1,691,000
Millwood Lake, AR	2,345,800
Direks Lake, AR	2,864,800
Gillham Lake, AR	2,743,000
DeQueen Lake, AR	2,768,800
Truscott Brine Dam, TX	1,717,000

Support of MR&T Operations and Maintenance (O&M).—Old River Lock is the access tows have from the Mississippi River to the Red River Waterway. When this structure is not in service tows must go down the Atchafalaya River to the gulf and back to the Mississippi past New Orleans, LA, adding days to the trip. It is critical to the success of the Red River Waterway that the Old River structure be maintained. Currently, there is a backlog of important maintenance items that must be funded. Total fiscal year 2004 request—$21,000,000.

Prepared Statement of the State of Louisiana Red River Waterway Commission

On behalf of the citizens of the Red River Waterway District of Louisiana, the Red River Waterway Commission urges the Congress of the United States to allocate the funds necessary for fiscal year 2004 for J. Bennett Johnston Waterway. Adequate funding will allow continued construction progress toward actual project completion, stimulate continued growth in tonnage movement, encourage the continuation of private and public development as well as facilitate total reliability in project function for industrial and recreational development. While this project is still in its infancy stage; the infrastructure investment has been justified by commercial and recreational development along the Red River and intermodal transportation cost savings because of water induced rates resulting from the project.

Tonnage volumes continue to steadily increase and cargo classifications diversify providing numerous business opportunities for this region. Further development will continue to take place with the knowledge that users can rely on an efficient, functional and environmentally sound river system.

Construction on Red River is over 90 percent complete, however, it is vitally important that we understand the importance of steady progress toward project completion with full knowledge of the financial constraints on this country.

Areas of Need for the Red River Waterway Project

Operations & Maintenance Program.—Channel Maintenance (Dredging) is critical to the viability of the waterway system. The President's Budget should reflect funding for maintenance dredging or give the Corps flexibility to operate and maintain projects as per our agreements. By the way, dredging is maintenance and reliability of channel should be of the highest priority. The Corps of Engineers needs sufficient resources to adequately maintain the navigation channel to provide dependable and reliable depths so that barges moving on the system can be loaded to the maximum nine foot draft. Maintenance of existing navigation structures at strategic locations is vital for continued development. The backlog of maintenance items at the lock & dam structures could be devastating to the Nation's investment in the navigation system.

Navigation Structures (Revetments and Dikes).—The completion of these river training works is necessary to maintain the channel alignment so as to provide reliable navigation to the commercial users. In addition, the structures help insure that barges can be loaded to the maximum depths allowable for profitable operation and continued industrial growth.

Construction/Maintenance Program.—The Corps of Engineers needs resources available to react quickly to landowner bank caving complaints that are a result of the project and are fully justified.

Mitigation and Bendway Dredging.—Continue with land acquisition and developmental cost analysis associated with the mitigation portion of the project to enhance the bottomland hardwood acreage within the Red River Valley area of Louisiana. Continue the bendway dredging operations to maintain the backwater connection to the channel of Red River for ingress and egress of nutrient rich river water and numerous species of freshwater fish.

Aids to Navigation.—As commercial use continues to increase, the Coast Guard presence and resources must reflect a similar growth to adequately maintain the buoy system on the Red River and stimulate confidence in the river system. Necessary funding to upgrade assets that lend reliability and credibility to our efforts is paramount.

Recreation Development.—Design and Construction in all Pools should continue as practicable. Important developments such as the Shreveport Riverview project, Teague Parkway Trails in Bossier City, Colfax Recreation Area and Natchitoches Recreation Area have established an excellent recreation foundation in Pools 3, 4, and 5.

PREPARED STATEMENT OF THE CADDO/BOSSIER PORT COMMISSION

On behalf of the citizens of Northwest Louisiana, the Caddo-Bossier Parishes Port Commission respectfully urges the Congress of the United States to allocate in the fiscal year 2004 Budget the necessary funding to keep America's water navigation and transportation infrastructure functioning in a safe, cost-effective and reliable manner. The Port and Maritime Industries are a major contributor to our Nation's economy. As an example, one out of every eight jobs in Louisiana is attributable to these industries.

Moreover, our water highways are national assets, linking every community in this Nation to the world. Unfortunately, the proposed budget does not include funding for Red River maintenance dredging in the Corps of Engineers' Civil Works Program. Dredging is absolutely essential to maintaining a safe and reliable waterways system. In addition, the $13.7 million budget allocated to the Corps of Engineers for construction does not come close to meeting expressed Corps capability of $29 million. Likewise, the Operating and Maintenance budget appropriation for the Corps at $12 million does not meet expressed Corps capability of $19.9 million.

The effect of these proposed cuts could also be exponentially deepened by proposed changes that would finance 25 percent to 50 percent of the cost of operation and maintenance from the Inland Waterways Trust Fund and the Harbor Maintenance Trust Fund. Since 1986, these funds have been used to pay one-half of the cost of construction and major rehabilitation on specified, fuel-taxed inland waterways segments. This action violates the agreement reached prior to passage of the Water Resources Development Act of 1986 affirming continued Federal responsibility for inland waterways operation and maintenance outlays in return for inland waterway users assuming the obligation for financing 50 percent of future construction and major rehabilitation expenditures. Of even greater concern is the potential this would create for future increases in the fuel tax, negatively impacting cargo rates and discouraging water transportation at a time when the industry is experiencing strong gains.

The Port of Shreveport-Bossier, located at the head of Red River navigation and in operation since 1997, stands today as a longtime dream with a solid track record of success and over $95 million of local public investment. In 2002, the Port reached the Two Millionth Ton of Cargo milestone, at an earlier point in its development than most ports of comparable size, and it added Southern Composite Yachts to a growing tenant list at the 2,000-acre complex. These results should provide a sense of pride to all members of Congress who believed in the Red River Navigation Project and recognized its potential. We urge you to continue to fund the waterways at a responsible level in support of the continued growth of Port and Maritime Industries that so directly impact our national economy.

PREPARED STATEMENT OF THE BOARD OF MISSISSIPPI LEVEE COMMISSIONERS

This statement is prepared by James E. Wanamaker, Chief Engineer for the Board of Mississippi Levee Commissioners, Greenville, Mississippi, and submitted on behalf of the Board and the citizens of the Mississippi Levee District. The Board of Mississippi Levee Commissioners is comprised of 7 elected commissioners representing the counties of Bolivar, Issaquena, Sharkey, Washington, and parts of Humphreys and Warren counties in the Lower Yazoo Basin in Mississippi. The Board of Mississippi Levee Commissioners is charged with the responsibility of providing protection to the Mississippi Delta from flooding of the Mississippi River and maintaining major drainage outlets for removing the flood waters from the area. These responsibilities are carried out by providing the local sponsor requirements for the Congressionally authorized projects in the Mississippi Levee District.

It is apparent that the Administration loses sight of the fact that the Mississippi River & Tributaries Project provides protection to the Lower Mississippi Valley from flood waters generated across 41 percent of the Continental United States. These flood waters flow from 31 States and 2 providences of Canada and must pass through the Lower Mississippi Valley on its way to the Gulf of Mexico. We will remind you that the Mississippi River & Tributaries Project is one of, if not the most cost effective project ever undertaken by the United States. The foresight used by the Congress and their authorization of the many features of this project is exemplary.

The many projects that are part of the Mississippi River & Tributaries Project not only provides protection from flooding in the area, but the award of construction contracts throughout the Valley provides assistance to the overall economy to this area that is also encompassed by the Delta Regional Authority. The employment of the local workforce and purchases from local venders by the contractors help stabilize the economy in one of the most impoverished areas of our country. The Mississippi Valley Flood Control Association will be submitting a general statement in support of an appropriation of $435 million for fiscal year 2004 for the Mississippi River & Tributaries Project. This is the minimum amount that we consider necessary to allow for an orderly completion for the remaining work in the Valley and to provide for the operation and maintenance as required to prevent further deterioration of the completed flood control and navigation work.

The Delta area of Mississippi remains exposed to severe flooding from the Project Design Flood on the Mississippi River. The administrative budget for Mainline Mississippi River Levees will further delay protection from the River beyond the already projected completion date of 2031. We are asking that the Congress appropriate $55.609 million which will allow for the continuation of ongoing contracts along our levee system and for the award of one additional construction item in fiscal year 2004. The Board of Mississippi Levee Commissioners has committed the necessary financial resources and staff to allow for the orderly acquisition of rights-of-way which is required by the local sponsor and we ask that the Congress continue to provide adequate Federal funding to allow construction of these projects to move forward in an orderly manner.

Although there is opposition to the recommended plan for the Yazoo Backwater Project within the environmental community, the local support for the recommended plan is strong. All six of the county Boards of Supervisors in the project area officially support the recommended plan provided in the Draft Reformulation Report released by the Corps of Engineers in September 2000. The Corps of Engineers and Environmental Protection Agency are currently working to gain consensus on the science used in evaluating impacts. The Mississippi Levee Board remains concerned about the apparent desire of the U.S. Fish & Wildlife Service to avoid the science involved and their continued effort to achieve their goal for change in national policy utilizing this single project as the vehicle. The Fish & Wildlife Service continues to advocate alternatives that constitute no more than land use planning for the area. The Vicksburg District Corps of Engineers has scheduled the release of the Final Report this summer which would call for initiating the acquisition of reforestation easements; the pump supply contract; and relocations during fiscal year 2004. At this time, we would ask that the Congress provide an appropriation of $12 million which will allow for the Corps of Engineers to proceed on schedule in providing protection to an area from flood waters that it has had to endure for over 60 years after the Eudora Floodway feature was removed from the Mississippi River & Tributaries Project.

The completion of channel work leading into the City of Greenville being constructed as part of the Upper Steele Bayou Project portion of the Big Sunflower River & Tributaries Project has proved itself on more than one occasion. As we have had several rainfall events that previously would have caused tremendous localized

flooding and flooding of many homes in the City of Greenville, rainfall from these storms was conveyed by the project without damage to any homes. We are requesting $1.29 million for construction to continue on the remaining features of this project in the Yazoo National Wildlife Refuge and for the acquisition of remaining mitigation lands required as this project nears completion.

As with the work that provides the drainage of flood waters from the City of Greenville, the Upper Yazoo Project, having been completed to the City of Greenwood, has also proved itself during these heavy rainfall events. Areas that were flooded in the City of Greenwood during heavy rains in 1973 have remained flood free over the last 2 years. This work needs to extend upstream toward the towns of Lambert and Marks so that they might receive the same level of protection as Greenville and Greenwood. We are requesting $15 million for the Upper Yazoo Project which will allow the Vicksburg District Corps of Engineers to continue with planning, design, and the award of construction contracts in an orderly manner. These channels also provide the outlet for the four flood control reservoirs which store excess waters from heavy rainfall events that occur in the upper reaches of the basin.

Demonstration Erosion Control work in the Bluff Hills above the Mississippi Delta has time and again proven the effectiveness of stabilized stream banks and reduction of head cutting, both of which reduces sediment from entering our channels. An appropriation of $20 million is being requested for the Demonstration Erosion Control Project to ensure that construction continues on schedule reducing maintenance requirements along the Yazoo, Tallahatchie, and Coldwater River Systems in years to come.

We read day after day comments regarding the need for maintenance of our Nations infrastructure. Completed portions of the Mississippi River & Tributaries Project are no different than other infrastructure across the country. The Big Sunflower River & Tributaries Project provides the drainage outlet for over 4,000 square miles of the Mississippi Delta (an area almost 4 times the size of the State of Rhode Island). Construction on this project was initiated in 1947 and completed in the mid 1960's. For over 50 years, the Mississippi Delta's two Levee Boards, which serve as the local sponsors of this project, have carried out their commitment to the Corps of Engineers for the maintenance of this project. The Vicksburg District Corps of Engineers determined in the early 1990's that major maintenance of these channels was required to restore the project to the capacity achieved when the work was completed in the 1960's. Opposition to the Big Sunflower River Maintenance Project has led the Vicksburg District Corps of Engineers to prepare a Supplemental Environmental Impact Statement. The State of Mississippi is also re-evaluating the Water Quality Certificate. Both of these activities are scheduled to be completed in fiscal year 2004, at which time a construction contract for the first dredging item can be awarded. All of the required right-of-way is in place for this item and we are requesting $4.17 million to allow the award for this contract.

Maintenance of our Mainline Mississippi River Levee System is provided on a day-to-day basis by the many Levee Boards along the Mississippi River. The Flood Control Act of 1928 clearly delineates activities to be performed by the local sponsor and by the Federal Government. We are requesting $8.69 million for the maintenance of the Mississippi River Levees to allow the Corps of Engineers to adequately carry out their responsibilities for major maintenance on this project.

A key feature in providing flood protection to the East part of the Mississippi Delta are the four flood control reservoirs that hold back flood waters from the Bluff Hills that would otherwise inundate the Delta. All of these reservoirs are well over 50 years old and are requiring major work to comply with the provisions of the Dam Safety Act. We are asking for appropriation for maintenance of Arkabutla Lake of $10.205 million, Enid Lake $7.47 million, Grenada Lake $8.358 million, and Sardis Lake $13.86 million. The increase in funds requested will be utilized for much needed maintenance to features of these projects. We are also asking for an appropriation of $1.135 million for the tributaries' features of the Yazoo Basin to allow continued bank stabilization and shore line protection work.

There are other issues in the Administrations' Budget for the Corps of Engineers that greatly concern everyone in the Valley. Inland navigation along the Mississippi River is a vital feature in keeping the economy of the Lower Mississippi Valley stable. This navigation system passes through the heart of an area focused on by the Delta Regional Authority and provides a nucleus on which other economic development in the area can rely. The Administration's proposal to utilize funds from the Inland Waterways Trust Fund for daily operation of maintenance of the waterway is unacceptable. It is a proven fact that construction rehabilitation funds needed to keep the navigation system operational are insufficient and the depletion of the Trust Fund for operation and maintenance will further hinder the rehabilitation of

the navigation system so vital to the economy of our Nation. Our inland waterways navigation system provides benefits to the Nation of approximately $900 million each year.

We have also been informed that the Secretary of the Army desires to "out source" up to 90 percent of the civil work functions being carried out by the Corps of Engineers. The Board of Mississippi Levee Commissioners has long been concerned about the reduction of personnel employed by the Corps of Engineers and its impact to the design and construction of our projects, along with the lack of experienced individuals available to assist during a major flood event along the Mississippi River. The Board of Mississippi Levee Commissioners is opposed to any further "out sourcing" of activities currently being performed in-house by the Corps of Engineers. We have found ourselves in a position that local sponsor personnel are required to perform activities during the design phase of our projects, or suffer from delays to the contract award. This is caused by the time required by procedures to have the work "out sourced". We are also opposed to any function currently administered by the Corps of Engineers being transferred to any other department of the Federal Government. The experience of personnel throughout the Corps of Engineers in carrying out their Congressionally authorized civil work functions cannot be replaced if moved to other departments of the Federal Government.

We are grateful to the committee for providing us the opportunity each year to present our testimony for the record.

LETTER FROM THE LITTLE RIVER DRAINAGE DISTRICT

Cape Girardeau, Missouri, March 19, 2003.

Senator PETER V. DOMENICI,
127 Dirksen, Washington, DC 20510.

DEAR SENATOR DOMENICI: My name is Dr. Sam Hunter, DVM of Sikeston, Missouri. I am a veterinarian, landowner, farmer and resident of Southeast Missouri.

I am the President of the Little River Drainage District, the largest such entity in the Nation. Our District serves as an outlet drainage and flood control District to parts of 7 counties in Southeast Missouri. We provide flood control protection to a sizable area of Northeast Arkansas as well. Our District is solely tax supported by more than 3,500 private landowners in Southeast Missouri.

Our District, as well as other Drainage and Levee Districts in Missouri and Arkansas, is located within the St. Francis River Basin. This is a project item of the Mississippi River and Tributaries Project.

The St. Francis Basin Project was authorized by Congress in 1928 for improvements by the U.S. Army Corps of Engineers. The initial authorization was justified by a projected benefit cost ratio of 2.4:1. Today this ratio is 3.6:1 and the project is still not completed. As you can see this has been a wise investment of our Federal tax dollars. Few projects or ventures with funding levels provided by the Federal Government return more than they cost. This one does and we need to complete it in a timely fashion.

Local interests have done their part in providing rights of way, roads, utilities and the like. Our government now needs to fulfill their obligatory part of the project and bring it to completion as quickly as possible.

The amount allocated for maintenance in the St. Francis Basin Project for fiscal year 2003 was approximately $12,000,000. This is a funding level that will permit adequate funding to maintain the features within that project on which the Corps of Engineers has made improvements and which it is the responsibility of the Federal Government to maintain. As a matter of information the Memphis District U.S. Army Corps of Engineers was able to execute 99 percent of the available funds for maintenance within that project for fiscal year 2003.

The President's budget for fiscal year 2004 contains $2.91 million for construction whereas the Corps of Engineers has the capability of $7.6 million. The President's budget has only $7.505 million for maintenance within the St. Francis Basin Project whereas the Corps of Engineers has a stated capability of $10.305 million for maintenance.

We believe the Corps could adequately use between $13 and $15 million each year for maintenance within this basin. We realize the budgetary restraints this year and respectively request Congress to approve funding for maintenance in the St. Francis Basin Project for fiscal year 2004 in the amount of $10.505 million. This is approximately $2 million less than what was actually spent in fiscal year 2003 but it will provide funds for adequate maintenance of the features within this basin which need annual attention.

Regarding the construction request we respectively request the Congress to fund the amounts for construction for this project equal to the Corps capability of $7.6 million.

Many positive changes have occurred to and within our sector of our Nation because of this project. We who live there welcome these changes. We, local interests, in Southeast Missouri and Northeast Arkansas want this project brought to completion and adequately maintained. We have waited over 70 years and we believe it is now time to complete this wise investment for our Nation.

Secondly, the Corps of Engineers has a stated capability of more than $435,000,000 for fiscal year 2004 in the MR&T Project. We ask you to give consideration to provide funding levels at $435,000,000 for this project. This will provide some very needed new construction and some maintenance. The President's budget contains only $162,440,000 for maintenance which is not adequate. The Corps has a stated capability of $208,443,000. We respectively request full capability amounts. The President's budget is for only $280,000,000 for construction which to put it simply is not enough to keep this vital project maintained and moving to a modernization and a reasonable completion date. Authorized since 1928 and not completed does not bode well for such a wise investment.

The Mississippi River and Tributaries Project was authorized following a record flood in 1927 that inundated more than 26,000 square miles of the Mississippi River Valley. Over 700,000 people were left homeless, many lives were lost, most if not all East-West commerce was stopped and it adversely effected the economy and the environment of our Nation. After that devastating event Congress in its infinite wisdom passed a bill and established the Mississippi River and Tributaries Project (MR&T) and authorized the U.S. Army Corps of Engineers to develop a plan to prevent such a disaster in the future.

To date the MR&T Project has prevented over $180 billion in flood damages for an investment of less than $10 billion. Additionally our Nation receives more than $900 million of navigational benefits each year due to this project. It is readily seen that this project had merit from the beginning and continues to reward the citizens not only of the valley itself but of the citizens of the entire Nation. It is a wise investment for this country, it is good for our economy, and it will be a vital link to the defense of our Nation in the event of an attack by our enemies.

This project is not completed and needs to be completed immediately. Our locks are aged and have exceeded by 20 percent in some instances of their expected life expectancy. The entire lock and dam system on the Mississippi River and Tributaries Project needs to be modernized in order for our shipping interests to compete with foreign markets. While we sit idly by and watch our infrastructure deteriorate our competitors in South America and Central America are building better and more efficient features throughout their countries. Ultimately this will lead to competition which our Nation will not be able to fairly compete with.

Further, we are very concerned and strongly opposed to the administration's recommendation in its fiscal year 2004 budget submission to use funds from the Inland Waterways Trust Fund to pay for part of the operation and maintenance cost of the inland waterways as well as some construction. The trust fund was established in 1978 and was to be made available for construction and rehabilitation for navigation on the inland and coastal waterways not for operations and maintenance. This is not what our Nation agreed to in 1978 and is not what was renewed under WRDA in 1986. We petition this Congress to stand up and have our Nation live up to the promises made to the contributors of that trust fund and abide by past agreements.

Should Congress allow this recommendation to come to fruition the trust fund would be drained of all its funds in a short period of time and the 50 percent cost share to pay for the construction for navigation would not be available unless the tax on fuel used by our shipping interests was raised considerably. In most cases these taxes would have to be doubled. This industry and its operators would suffer dreadfully and many would have to cease operations. Even today at least one has filed for bankruptcy and at least one or two others is contemplating the same. Should this continue to happen the best and most desirable mode of transportation to get our farm commodities and products to market would require overland transportation which would place a giant burden on our highway system. Further, it would add to the expense to our farmers for getting their products to market as well as increasing the cost of fuel oil, gasoline, coal, chemicals, and the other many items shipped by our barge industry.

It has been proven year after year our waterway transportation system is the safest, the most environmentally acceptable, and the most fuel efficient in moving mass amounts of commodities and materials throughout our Nation. It would be totally unacceptable and extremely unwise to diminish the role of that mode of moving products throughout our Nation and expect them to be moved either by rail or

by highways. Our highway systems already are in dire need of repair and to add additional demands on them would be extremely costly. They would become very unsafe, and would require much more fuel consumption which we currently do not have but must import. Hopefully, common sense will prevail and Congress will make the choice to invest into one of the greatest assets we have in our Nation.

The many locks and dams on our rivers are needed. They were designed to accommodate traffic 50–60 years ago and it is now time to upgrade, enlarge, and construct them to accommodate the industry as we have it today. We have done the same thing with our vehicular traffic on our roads by upgrading, enlarging, and constructing to meet the modern day demands. It is now time and past time to do the same for our water industry. Former President Eisenhower saw an increase in our car and truck traffic on the horizon and thus we implemented an extensive interstate system. Let's look to the future with progressive and wise vision and do something in a similar way on our rivers. Our Nation is the world's leading maritime and trading nation. We rely on an efficient and effective marine transport system to maintain our role as a global power. We must continue that role by setting the pattern for our neighbor, allies, and other foes.

Our current waterway system has improved the quality of life and has provided a foundation for economic growth and development in the United States particularly throughout the Mississippi Valley. Our flood control systems work, our transport systems are efficient, our multi-purpose projects all contribute to our national prosperity. The benefits are real, the flood damages are known to have prevented much devastation. Transportation costs have been reduced and increased trade worldwide has increased. Unfortunately our Nation has not invested in water resource projects and has not kept pace with the economic and social expansion not only in this country but on global markets as well. Most of our locks and dams are outdated and were designed only for a 50 year life. We have exceeded that on nearly half of those locks. Many of our locks are undersized for modern commercial barge demands and need to be modernized. Imagine our Highway system being as it was 50 years ago and having to accommodate the massive number of cars we have today. That is precisely what we are doing on our waterways. We need to have greater vision and mettle and become aggressive and progressive in meeting today's needs. There is currently $10 billion needed for waterway improvements in addition to a backlog of approximately $300,000,000 which we need to address in this country. Our country should have the same vision and the same goal of modernizing and upgrading our waterway system as we upgraded and modernized our interstate system across our country in the 1960's.

The latest report by the American Society of Civil Engineers provides us an independent report card review on America's infrastructure. Features that were graded were roads, bridges, transit systems, aviation schools, drinking water, waste water, dams, solid waste, hazardous waste, navigable waterways, and energy. The highest grade this independent organization gave was a C+ to our solid waste disposal system. The overall average which they gave to our infrastructure was a D+. This is shameful and this needs to be corrected. The ASCE estimates approximately $1.3 trillion needs to be spent on our infrastructure over the next 5 years. We can and should heed their recommendation. This is not an "in house" review but an independent assessment.

What a great way for our country to stimulate its economy and at the same time be building and making investments into a system for the future which will return back more dollars than expended. We petition you to give this vital industry of our Nation a strong endorsement and do all you can to ensure our waterways systems stay competitive with our foreign competitors.

At a time when we need to stimulate our economy and at a time that safety from terrorist activities needs to be enhanced and at a time that many in our Nation are concerned about cleaner air, cleaner water, etc., we have a great opportunity to meet the needs of all. We can be making sound investments into our infrastructure which will turn back more monies to the taxpayers of this country than was invested. We will be increasing our defense capabilities should our Nation be attacked from an outside force.

We are strongly opposed to any action that would transfer any part or all of the U.S. Army Corps of Engineers Civil Works mission to any other agency or department of the Federal Government. This agency has completed and overseen the Civil Works mission since its inception and has done quite well. Very few of our other governmental bodies can report and show a return of the taxpayers investment as the Corps of Engineers can and has been doing for many years. It has been reported this administration desires to transfer the Corps Civil Works program to the Department of Transportation, the Flood Control and Environmental Restoration to the Department of Interior and the Regulatory Program to the Environmental Pro-

tection Agency. The U.S. Army Corps of Engineers has rendered extremely valuable services to this Nation for many years. The Corps has created an inland waterways system that is the envy of the rest of the world. Our Nation's commercial transportation system is critical to the Nation's economy and the environmental well being and part of this system is used to transport military equipment in support of the war on terrorism. The Corps has also been in the forefront to provide flood control and environmental restoration projects and have supported our troops at every armed conflict this Nation has been engaged in. In our opinion, it will be a serious mistake and have a negative nationwide impact to spread the functions of the Corps into several parts and across a Federal bureaucracy. This Nation would lose a wonderful asset and one we have enjoyed for many years.

Further, we are opposed to the continued trend to "out-source" or to contract-out many of the present positions in the Army Corps of Engineers, Civil Works Division. The current Secretary of Army has proposed 90 percent of all Corps of Engineers positions be contracted out which would eliminate approximately 22,000 current employees and would make it almost impossible for much of their work to continue. The Corps of Engineers needs to have a good core group of employees "in house" in order to continue to function in an orderly manner and in a fashion their mission was set out by Congress. It is our hope that our good Congressional friends will recognize this as a problem and do all they can to insure that such efforts are not successful.

I wish to thank you very much for your time and kind attention and for taking the time to review the above discourse. We would be very appreciative of anything this committee can do to help us improve our environment, improve our livelihood, and improve the area in which we live and work which ultimately is good for America. We are also very appreciative of all this Committee has done for us in the past. We trust you will hear our pleas once more and act accordingly.

DR. SAM M. HUNTER,
President.

PREPARED STATEMENT OF THE MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION

My name is M.V. Williams and I am the President of the West Tennessee Tributaries Association. It is also my privilege to serve as the Chairman of the Executive Committee of the Mississippi Valley Flood Control Association.

I hope that every one here has knowledge of the Mississippi Valley Flood Control Association and a general idea of our objectives. For the sake of time let me sum it up by saying we are an agency that gives all the people of the Mississippi River Valley the opportunity to speak and act jointly on all matters pertaining to flood control, navigation, bank stabilization and major drainage problems. We have been coming to Washington since 1922 and continuously since re-organization in 1935, that's 68 years. Our members for the most part are elected officials that give of their time and resources because they know full well that their well-being and that of their family, friends and neighbors depends on the whims of the majestic and mighty Mississippi River and its Tributaries.

Today our great Nation is engaged in a global war on terrorism and our first priority is to win this war and to give back to our citizens that feeling of safety that was so rudely taken from us on the 11th day of September, 2001 by a bunch of self-destructive fanatical murderers. We know that each of you shares our concerns on this matter.

I am here today to talk about the fiscal year 2004 Appropriations for the Mississippi River and Tributaries Project. But before I do, I wish to thank all the Members of the United States Congress for adding funds to the President's fiscal year 2003 Budget for the U.S. Army, Corps of Engineers' Civil Works program. These additional funds are needed to insure the continuation of the improvement of our water resources, the restoration and protection of our natural environment and the operations and maintenance of our inland waterways system and our vitally needed flood control structures.

Today we are again faced with the Administration's Budget that is totally inadequate to accomplish those things that I have just mentioned. In addition to a lack of funding this 2004 Budget contains requirements that are totally unacceptable to us. I would at this time desire to address these concerns before talking briefly about the Appropriations.

First, the Administration is proposing to reach into the Inland Waterways Trust Fund to pay a large share of the cost of operations and maintenance of the inland

waterways of this country which by the way are the envy of the rest of those that inhabit this planet.

The Inland Waterways Trust Fund was established by the Congress in 1978 to make available funds for future construction and rehabilitation for navigation on the inland and coastal waterways, not for use for the operations and maintenance of those waterways. The funds came from a tax levied on the diesel fuel used by the commercial tow boats that used the waterways. These funds were not used until the passage of the Water Resources Development Act of 1986 at which time an agreement was reached between the waterways operators and the Federal Government that would call for an increase in the amount of fuel taxes coupled with the understanding that the trust fund would not be used for operation and maintenance costs.

If the Congress allows the use of trust funds for operations and maintenance, the trust fund will be exhausted in a short period of time and the 50 percent share to pay for construction for navigation facilities will not be available unless the tax on fuel used by the tow boats is raised once again. This action would make it extremely difficult for barge operators to continue their operations thereby making it more expensive for farmers to get their products to market and for the public to realize savings in transportation cost for bulk commodities such as fuel oil, gasoline and other crucial items shipped by barge. We urge you not to accept this proposal made by the Administration.

We again wish to express our strong opposition to any action that would transfer any part of the Corps of Engineers' Civil Works mission to other agencies or departments of the government and also our strong opposition to any "out-sourcing" of the present positions in the Corps' civil works functions.

We were very pleased to see that section 109 of the Fiscal Year 2003 Appropriations Bill reflected that the Congress shares our opposition to these matters and did in fact see that no funds appropriated would be used to study or implement any plans privatizing, divesting or transferring of civil works missions, functions, or responsibilities for the United States Army Corps of Engineers. Thank you very much for that.

Now if I may let me speak very briefly on the amount of funds we consider to be required for the Fiscal Year 2004 Mississippi River and Tributaries Appropriations.

The management and direction of the Mississippi Valley Flood Control Association is vested in a ten member Executive Committee who are elected by the members of the Association from their respective states, two each from the states of Louisiana, Mississippi and Arkansas and one each from the states of Tennessee, Kentucky, Missouri and Illinois. The Executive Committee has spent time reviewing and examining the Fiscal Year 2004 Proposed Budget for the Mississippi River and Tributaries Project and after careful consideration we arrived at the amount of $435,000,000 that we consider the amount required to complete the MR&T Project in the most economically and engineeringly feasible time frame that will also benefit, preserve and restore the natural environment. I have attached a sheet to my statement that reflects our request in more detail.

In closing let me state once again that our priorities are to win the war on terrorism, to protect the homeland and to revitalize the Nation's economy.

We must not forget the importance of funding the critical water resources infrastructure needs in order to protect the lives and property of our citizens and to protect the investment that has already been made.

Thank you for giving me the opportunity to speak to you today. The speakers to follow me will be more specific in their statements.

I shall close with the sincere hope that god will continue to bless this country and bring about a quick and kind end to all the discord in the world.

MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2004 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS

Project and State	MVCFA Request
Surveys, Continuation of Planning and Engineering & Advance Engineering & Design:	
Memphis Harbor, TN	$700,000
Germantown, TN	171,000
Millington, TN	127,000
Fletcher Creek, TN	150,000
Southeast Arkansas	1,000,000
Coldwater Basin Below Arkansas	500,000
Quiver River, MS	100,000

MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2004 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS—Continued

Project and State	MVCFA Request
Alexandria, LA to the Gulf of Mexico	700,000
Morganza, LA to the Gulf of Mexico	7,992,000
Donaldsonville, LA to Gulf of Mexico	1,400,000
Spring Bayou, LA	832,000
Tensas River, LA	500,000
Donaldsonville Port Development, LA	100,000
Collection & Study of Basic Data	695,000
Subtotal—Surveys, Continuation of Planning & Engineering & Advance Engineering & Design	14,967,000
Construction:	
St. John's Bayou-New Madrid Floodway, MO	7,600,000
Eight Mile Creek, AR	2,050,000
Helena & Vicinity, AR	3,407,000
Grand Prairie Region, AR	24,700,000
Bayou Meto, AR	16,000,000
West Tennessee Tributaries, TN	620,000
Nonconnah Creek, TN	3,068,000
Wolf River, Memphis, TN	2,500,000
Reelfoot Lake, TN	1,240,000
St. Francis Basin, MO & AR	6,300,000
Yazoo Basin, MS	53,555,000
Atchafalaya Basin, LA	21,235,000
Atchafalaya Basin Floodway	14,200,000
MS Delta Region, LA	3,400,000
Horn Lake Creek, MS	395,000
MS & LA Estaurine Area, MS & LA	30,000
Channel Improvements, IL, KY, MO, AR, TN, MS & LA	44,017,000
Mississippi River Levees, IL, KY, MO, AR, TN, MS & LA	50,645,000
Subtotal—Construction	254,962,000
Subtotal—Maintenance	208,433,000
Subtotal—Mississippi River & Tributaries	478,362,000
Less Reduction for Savings & Slippage	−43,362,000
Grand Total—Mississippi River & Tributaries	435,000,000

PREPARED STATEMENT OF THE BOARD OF LEVEE COMMISSIONERS FOR THE YAZOO-MISSISSIPPI DELTA

YAZOO BASIN, MISSISSIPPI RIVERS AND TRIBUTARIES PROJECT

This statement today, made on behalf of the citizens represented by the Yazoo-Mississippi Delta Levee Board, is not only in support of the funding requests contained herein, but also for the general funding testimony offered for Fiscal 2004 by the Mississippi Flood Control Association. The association is requesting funding in the amount of $435 million for the Mississippi Rivers and Tributaries Project (MR&T), an amount based on the association's professional assessment of the capabilities of the U.S. Army Corps of Engineers, Mississippi Valley Division.

I would ask that these remarks be made a part of the record.

In the aftermath of the devastating and historic Great Flood of 1927, the Flood Control Act of 1928 established as national priority, the development of a comprehensive flood control plan to reduce the likelihood of such a horrific event's ever happening again in the Lower Mississippi Valley. As we look back, the MR&T has returned $180 billion in benefits for the $10 billion invested—truly an American public works success story.

Significantly, however, a substantial amount of uncompleted work on the project remains, necessarily exposing many areas to the risks of flooding. Consequently, the Yazoo-Mississippi Delta Levee Board asks Congress to provide funding at a level which will allow the MR&T to continue at a pace commensurate with the national priority to protect people and property from the ravages of flooding. In order to

avoid the sorts of delays which can result in the loss of life and livelihood, we must again depend upon the good men and women of Congress to add the necessary funding to the administration's budget which will allow the Corps of Engineers to proceed with its work at full capacity.

A line-item chart reflecting existing and needed funding levels for MR&T projects in the Lower Mississippi Valley follows, with special emphasis given to those projects most critical to our levee district:

MISSISSIPPI RIVER LEVEES

Overall, the construction needs for levees and channels in the Lower Mississippi Valley is $55.609 million, with an additional $8.59 million required for maintenance. Work to continue the ongoing process of strengthening deficient levees to the south of our district is underway and needs to continue on schedule. Of particular interest to our levee board is a series of projects designed to address the problem of levee under seepage. We are asking that $2.93 million be allocated to the Memphis District for three projects designed to address this problem.

UPPER YAZOO PROJECTS (UYP)

The number one priority for the Yazoo-Mississippi Delta Levee Board, the Upper Yazoo Project was conceived in 1936. The project includes a system of flood control reservoirs which discharge into a system of channels and levees intended to safely convey headwater from the hills to the Mississippi River. While this project has been advancing smoothly, it is critical to the people of the North Delta that it continue to do so. While the President's budget contains only $6.62 million for this project, we are asking that Congress increase its appropriation to $15 million to insure that this important project continues without interruption. These additional funds will be used to complete Items 5A and 5B; to initiate construction on Item 6A; and to acquire right of ways and mitigation lands for Item 6 and Item 7.

YAZOO HEADWATER FLOOD CONTROL RESERVOIRS

Four major flood control reservoirs exist in Mississippi to control the release of headwater into the Yazoo River system—Sardis, Arkabutla, Enid and Grenada. These have prevented significant flood damages through allowing drainage from the State's hill section to be released into the much lower Delta at controlled rates. All four are aging and require both routine maintenance and upgrading. We are requesting that Congress allocate the needed $39.89 million so that they can continue to function effectively.

BIG SUNFLOWER RIVER MAINTENANCE PROJECT

The primary drainage outlet for 10 counties in Mississippi, the Sunflower River System has been subject to the same siltation factors common to all Delta streams. The Corps of Engineers has determined that the river has had a 40 percent reduction in its flow capacity.

The Levee Boards have been working closely with the Vicksburg District as they complete the SEIS for the remaining work and with MDEQ on obtaining the Water Quality Certificate for the work. Both of these efforts are scheduled to be completed in 2004. Right-of-way is in place for the next construction item. We are requesting $4.17 million so that the SEIS can be completed and construction can be reinitiated as soon as the Water Quality Certificate is issued.

DEMONSTRATION EROSION CONTROL PROJECT

We feel strongly that continued funding of DEC is important due to the fact that substantial amounts of the sediments which would be controlled by them would eventually end up within the ColdwaterTallahatchie/Yazoo river system. We urge Congress to allocate $20 million to this effort.

BIG SUNFLOWER RIVER

We are requesting that Congress allocate $1.29 million so that the Corps might purchase mitigation lands.

CONTINUING AUTHORITY PROGRAMS

The YMD Levee Board has committed to assist local governments in co-sponsoring projects that fall under the Corps' Continuing Authority Program. There is tremendous need for Section 14, Section 205 and Section 208 programs throughout our dis-

trict. We urge Congress to both increase the limits for these projects and to make the eligibility process more competitive.

YAZOO BACKWATER PROJECT

We continue to support the Mississippi Levee Board's and Corps' recommended project to address the problems of backwater flooding in the South Delta. We support their funding request of $12 million to advance design, initiate real estate activity and initiate a pump supply contract.

Those of us at the Yazoo-Mississippi Delta Levee Board are deeply appreciative of the enormous amount of support lent our efforts by Congress in the past, and it is with full awareness of the challenges facing our great Nation that we earnestly request you support us again in meeting our challenge of keeping the floodwaters at bay.

Humbly submitted on behalf of the Yazoo-Mississippi Delta Levee Board and all the citizens it seeks to keep dry.

PREPARED STATEMENT OF ST. FRANCIS LEVEE DISTRICT OF ARKANSAS

EXECUTIVE SUMMARY

The Mississippi Valley Flood Control Association fiscal year 2004 Civil Works Budget, Mississippi River and Tributaries Appropriations-Requesting Appropriations of $6,300,000 for Construction and $14,733,000 for Maintenance and Operation in the St. Francis Basin Project and a Total of $435,000,000 for the Mississippi River Tributaries Project.

BACKGROUND INFORMATION

My name is Rob Rash, and my home is in Marion, Arkansas, located on the West side of the Mississippi River and in the St. Francis Basin. I am the Chief Engineer of the St. Francis Levee District of Arkansas. Our District is the local cooperation organization for the Mississippi River and Tributaries Project and the St. Francis Basin Project in Northeast Arkansas. Our District is responsible for the operation and maintenance of 160 miles of Mississippi River Levee and 75 miles of St. Francis River Tributary Levee in Northeast Arkansas.

The St. Francis Basin is comprised of an area of approximately 7,550 square miles in Southeast Missouri and Northeast Arkansas. The basin extends from the foot of Commerce Hills near Cape Girardeau, Missouri to the mouth of the St. Francis River, 7 miles above Helena, Arkansas, a total distance of 235 miles. It is bordered on the east by the Mississippi River and on the West by the uplands of Bloomfield and Crowley's Ridge, having a maximum width of 53 miles.

The Mississippi River and Tributaries Project and the St. Francis Basin Project provide critical flood protection to over 2,500 square miles in Northeast Arkansas alone. This basin's flood control system is the very lifeblood of our livelihood and prosperity. Our resources and infrastructure are allowing the St. Francis Basin and the Lower Mississippi Valley to develop into a major commercial and industrial area for this great Nation. The basin is quickly becoming a major steel and energy production area. The agriculture industry in Northeast Arkansas and the Lower Mississippi Valley continues to play an integral role in providing food and clothing for this Nation. This has all been made possible because Congress has long recognized that flood control in the Lower Mississippi Valley is a matter of national interest and security and has authorized the U.S. Army Corps of Engineers to implement a flood control system in the Lower Mississippi Valley that is the envy of the civilized world. With the support of Congress over the years, we have continued to develop our flood control system in the Lower Mississippi Valley through the Mississippi River and Tributaries Project and for that we are extremely grateful.

Although, at the current level of project completion, there are areas in the Lower Mississippi Valley that are subject to major flooding on the Mississippi River. The level of funding that has been included in the President's Budget for the overall Mississippi River and Tributaries Project is not sufficient to adequately fund and maintain this project. The level of funding will require the citizens of the Lower Mississippi Valley to live needlessly in the threat of major flood devastation for the next 30 years. Timely project completion is of paramount importance to the citizens of the Lower Mississippi. Ten and Fifteen Mile Bayou improvements are just one of many construction projects necessary for flood relief in the St. Francis Basin. Ten and Fifteen Mile Bayou improvements were reauthorized by Congress through the Flood Control Act of 1928, as amended. Section 104 of the Consolidated Appropriation Act of 2001 modified the St. Francis Basin to expand the project boundaries

to include Ten and Fifteen Mile Bayous and shall not be considered separable elements. Total project length of 38 miles includes Ten and Fifteen Mile Bayou, Ditch No. 15 and the 10 Mile Diversion Ditch that provide drainage for the West Memphis and Vicinity. Without additional funds, construction would be delayed and West Memphis and Vicinity will continue to experience record flooding as seen December 17, 2001. West Memphis and Vicinity would experience immediate flood relief when the first item of construction is completed.

U.S. ARMY CORPS OF ENGINEERS

We are strongly opposed to any action that would transfer any part or the entire U.S. Army Corps of Engineers Civil Works mission to any other agency or department of the Federal Government. This agency has completed and overseen the Civil Works mission since its inception and has done quite well. Very few of our other governmental bodies can report and show a return of the taxpayer's investment as the Corps of Engineers can and has been doing for many years. It has been reported this administration desires to transfer the Corps Civil Works program to the Department of Transportation, the Flood Control and Environmental Restoration to the Department of Interior and the Regulatory Program to the Environmental Protection Agency. The U.S. Army Corps of Engineers has rendered extremely valuable services for this Nation for many years. The Corps has created an inland waterways system that is the envy of the rest of the world. Our Nation's commercial transportation system is critical to the Nation's economy and the environmental well being and part of this system is used to transport military equipment in support of the war on terrorism. The Corps has also been in the forefront to provide flood control and environmental restoration projects and have supported our troops at every armed conflict this Nation has engaged in. In our opinion, it will be a serious mistake and have a negative nationwide impact to spread the functions of the Corps into several parts across a Federal bureaucracy. This Nation would lose a wonderful asset and one we have enjoyed for over 200 years.

PROPOSED FUNDING

We support the amount of $435,000,000 requested by the Mississippi Valley Flood Control Association for use in the overall Mississippi River and Tributaries Project. This is the minimum amount that the Executive Committee of the Association feels is necessary to maintain a reasonable time line for completion of the overall Mississippi River and Tributaries Project. Also, the amounts that have been included in the President's Budget for the St. Francis Basin Project; construction, operation and maintenance have not been sufficient to fund critical projects. These declined amounts have resulted in a significant backlog of work within the St. Francis Basin. Therefore, our District is requesting additional capabilities of 6,300,000 for the St. Francis Basin Project construction funds and $14,733,000 for the St. Francis Basin operation and maintenance funds. The amounts requested for the St. Francis Basin Project are a part of the total amounts requested for the Mississippi River and Tributary Appropriations of the Civil Works Budget.

SUMMATION

As your subcommittee reviews the Civil Works Budget of fiscal year 2004 Appropriations for the Mississippi River and Tributaries Project, please consider the significance of this project to the Mississippi Valley and the Nation's, economy and infrastructure. As always, I feel the Subcommittee will give due regard to the needs of the Mississippi River Valley as it considers appropriations for the Mississippi River and Tributaries Project. I would like to sincerely thank the Subcommittee for its past and continued support of the Mississippi River and Tributaries Project.

MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2004 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS

Project and State	President's Budget	Recommended Program
Surveys, Continuation of Planning and Engineering & Advance Engineering & Design:		
Memphis Harbor, TN	.....	$700,000
Germantown, TN	$51,000	171,000
Millington, TN	84,000	127,000
Fletcher Creek, TN	120,000	150,000
Southeast Arkansas	.....	1,000,000
Coldwater Basin Below Arkansas	185,000	500,000

MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2004 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS—Continued

Project and State	President's Budget	Recommended Program
Quiver River, MS	.....	100,000
Alexandria, LA to the Gulf of Mexico	435,000	700,000
Morganza, LA to the Gulf of Mexico	3,487,000	7,992,000
Donaldsonville, LA to Gulf of Mexico	800,000	1,400,000
Spring Bayou, LA	500,000	832,000
Tensas River, LA	.....	500,000
Donaldsonville Port Development, LA	.....	100,000
Collection & Study of Basic Data	695,000	695,000
Subtotal—Surveys, Continuation of Planning & Engineering & Advance Engineering & Design	6,357,000	14,967,000
Construction:		
St. John's Bayou-New Madrid Floodway, MO	.....	7, 600,000
Eight Mile Creek, AR	2,050,000	2,050,000
Helena & Vicinity, AR	2,180,000	3,407,000
Grand Prairie Region, AR	.....	24,700,000
Bayou Meto, AR	.....	16,000,000
West Tennessee Tributaries, TN	.....	620,000
Nonconnah Creek, TN	2,618,000	3,068,000
Wolf River, Memphis, TN	.....	2,500,000
Reelfoot Lake, TN	.....	1,240,000
St. Francis Basin, MO & AR	2,365,000	6,300,000
Yazoo Basin, MS	7,740,000	53,555,000
Atchafalaya Basin, LA	14,075,000	21,235,000
Atchafalaya Basin Floodway	7,768,000	14,200,000
MS Delta Region, LA	3,200,000	3,400,000
Horn Lake Creek, MS	.....	395,000
MS & LA Estaurine Area, MS & LA	.....	30,000
Channel Improvements, IL, KY, MO, AR, TN, MS & LA	39,562,000	44,017,000
Mississippi River Levees, IL, KY, MO, AR, TN, MS & LA	42,919,000	50,645,000
Subtotal—Construction	124,477,000	254,962,000
Subtotal—Maintenance	162,440,000	208,433,000
Subtotal—Mississippi River & Tributaries	293,274,000	478,362,000
Less Reduction for Savings & Slippage	−13,274,000	−43,362,000
Grand Total—Mississippi River & Tributaries	280,000,000	435,000,000

PREPARED STATEMENT OF THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

The Louisiana Department of Transportation and Development, Office of Public Works and Intermodal Transportation, is the agency designated to represent the State of Louisiana for the coordinated planning and development of water resources, including flood control, navigation, drainage, water conservation and irrigation projects. This statement, submitted on behalf of the State of Louisiana and its twenty levee boards, presents the recommendations for fiscal year 2004 appropriations for all U.S. Army Corps of Engineers Civil Works Projects in Louisiana.

Louisiana contains the terminus of the Mississippi River, third largest drainage basin in the world, draining 41 percent, or 1¼ million square miles, of the contiguous United States and parts of two Canadian provinces. In addition, Louisiana contends with flows from the Sabine River, the Red River, the Ouachita River, the Amite River and the Pearl River. All of these river systems combined drain almost 50 percent of the contiguous land mass of this Nation through Louisiana.

Louisiana also plays a strategic part in providing the middle of this Nation with access to the global marketplace through the Federally constructed Inland Waterway System. Approximately 75 percent of all soybeans, animal feed and corn, and almost 50 percent of all rice and cereals grown in mid-America are shipped to world markets through Louisiana. The 230 mile deepwater channel portion of the Mis-

sissippi River from Baton Rouge to the Gulf is the largest port complex in the world allowing Louisiana to rank first in the Nation in volume of waterborne traffic. Louisiana's maritime industry accounts for 22.5 percent of the total Louisiana gross state product and supports directly and indirectly almost 244,000 jobs. The ready availability of this low cost waterborne transportation system allowed Louisiana to develop the second largest refining capacity in the Nation, producing 15 billion gallons of gasoline annually at 19 refineries. Louisiana ranks second in produced natural gas and third for oil production. The pipeline system which supplies much of this Nation with natural gas and refined petroleum products originates in Louisiana. But none of this would have been possible without a comprehensive and extensive flood control system to protect the landside facilities. Louisiana is protected from riverine and tidal flooding by almost 3,000 miles of levees (1,500 in the MR&T system) constructed jointly by Federal, State and local entities. Louisiana's 20 levee boards are responsible for the maintenance and upkeep of these levees which allow one-third of Louisiana to be habitable year-round. Concentrated behind these levees are the vast majority of Louisiana's urban centers and petro-chemical complexes. Nearly 75 percent of the population lives and works in these protected areas and produces more than 90 percent of the State's disposable personal income. Approximately 60 percent of the State's agricultural products are produced in these protected areas. The lives and livelihoods of most of Louisiana's citizens depends on the effectiveness of this comprehensive flood control system. But Louisiana is not the only beneficiary of this investment. The petrochemical, oil and gas industries in Louisiana that contribute to the economic well being of the Nation are almost totally dependent on the Federally constructed flood control system to protect their facilities. These industries, and most of the agricultural industries in mid-America, are heavily dependent on the Federally maintained navigable waterway system to move their products. It is appropriate that the Federal Government has committed to providing combined flood control and navigation measures that benefit both Louisiana and the rest of the Nation.

But the levees and channel improvements that benefit the entire Nation have been blamed for the rapidly deterioration of our coastal wetlands that annually produce a commercial fish and shellfish harvest worth $600 million and 40 percent of the Nation's wild fur and hides harvest worth $15 million. Additionally these coastal marshes produce a tidal surge dampening effect that was incorporated into the design of our hurricane protection levees. The loss of these wetlands is adversely impacting both the area's natural resources and the effectiveness of the protection system. These wetlands are not Louisiana's alone; they constitute 40 percent of the Nation's wetlands and their restoration needs to be a national priority.

The Mississippi River and Tributaries Project (MR&T) has been underway since 1928 and isn't scheduled for completion until the year 2031—a date that will continually move further into the future unless an adequate level of funding is provided each year. The Administration's budget proposals for the MR&T Project for the past several years appear to indicate a declining interest on the part of the Federal Government in seeing this project through to a successful completion. The Administration's proposed budget of $298 Million for fiscal year 2004 is totally unacceptable. We strongly support the Mississippi Valley Flood Control Association's request for $435 Million for the MR&T Project. This is the minimum amount necessary to continue the on-going construction work and perform the bare minimum of maintenance required to prevent further deterioration of the Federal investment. We urge you to support this requested level of funding.

We strongly oppose the Administration's proposal to use funds from the Inland Waterways Trust Fund to pay for part of the waterway system's routine operations and maintenance costs. The Inland Waterways Trust Fund, established in 1978 and funded by user fee revenues generated by a tax on towboat fuel, was intended to be used to pay one-half the cost of construction and major rehabilitation of navigation infrastructure. The Administration proposal will rapidly deplete the fund and set the stage for significantly increasing—some say more than doubling—the user fee. This will adversely impact the Nation's economy in the agricultural, energy and transportation sectors and will undermine America's international competitiveness. We urge you to reject this ill-advised raid on the Inland Waterways Trust Fund, as well as the tax increase it promises, and to insure that the balance and all future Trust Fund revenues are spent for their original purpose of modernizing the system to keep it functioning efficiently well into the future.

We are also opposed to the Administration's budget proposal to classify segments of the Inland Waterway System for funding purposes as either high or low use dependent on the tonnage moved over a particular segment. The Inland Waterway System—the whole system—allowed industrial facilities scattered throughout the central portion of the United States to obtain raw materials and fuel from distant

locations and to reach worldwide markets. The economies of thousands of inland cities and towns are dependent on low cost waterborne transportation to link America's far-flung mining, manufacturing, forestry and agricultural industries with deepwater ports. To give preferential status to the maintenance of only the mainstem portion of the waterway system will wreak havoc on the economies of all the communities located on the so-called low-use waterways, especially now when the Nation's economy is still struggling to recover.

In making the following funding recommendations regarding specific construction, studies, and operation and maintenance items, the State of Louisiana would hope that Congress and the Administration will honor their prior commitments to infrastructure development and fund our requests. We feel that water resources projects are probably the most worthwhile and cost-effective projects in the Federal budget, having to meet stringent economic justification criteria not required of other programs. We ask that this be taken into consideration in the final decision to appropriate the available funds.

We wish to express our thanks to the Appropriations Subcommittees on Energy and Water Development of the House and Senate for allowing us to present this brief on the needs of Louisiana. Without reservation, practically every single project in Louisiana which has been made possible through actions of these committees has shown a return in benefits many times in excess of that contemplated by the authorizing legislation. The projects which you fund affect the economy of not only Louisiana, but the Nation as a whole. The State of Louisiana appreciates the accomplishments of the past and solicits your consideration of the appropriations requested for fiscal year 2004.

MISSISSIPPI RIVER AND TRIBUTARIES—SUMMARY OF RECOMMENDED APPROPRIATIONS FOR FISCAL YEAR 2004—STATE OF LOUISIANA

Louisiana	Administrative Budget	Louisiana Request
FC MR&T General Investigations:		
Alexandria to the Gulf	$435,000	$435,000
Donaldsonville to the Gulf	800,000	1,200,000
Morganza to the Gulf, PED	3,487,000	10,000,000
Collection & Study Data	190,000	190,000
Donaldsonville Port Development, LA	.....	100,000
Point Coupee St Mary Watershed	.....	100,000
Collect & Study of Basic Data (AR, LA, MS)	280,000	280,000
Spring Bayou Area, LA	500,000	600,000
Tensas River Basin, LA	.....	500,000
FC MR&T Construction:		
Atchafalaya Basin	14,075,000	24,075,000
Atchafalaya Basin Floodwater System	7,768,000	11,668,000
Channel Improvement	8,900,000	8,900,000
Mississippi Delta Region (FED)	3,200,000	3,200,000
Mississippi River Levees, LA	4,110,000	4,110,000
Mississippi River Levees (AR, LA, MS)	23,615,000	25,115,000
Channel Improvement (AR, LA, MS)	15,235,000	17,735,000
FC MR&T Maintenance:		
Atchafalaya Basin	13,335,000	18,296,000
Atchafalaya Basin Floodway System	2,450,000	3,850,000
Baton Rouge Harbor (Devil's Swamp)	15,000	281,000
Bayou Cocodrie and Tributaries	85,000	85,000
Bonnet Carre Spillway	1,975,000	3,009,000
Channel Improvement	15,300,000	15,300,000
Dredging	700,000	700,000
Inspection of Completed Works	425,000	425,000
Mapping	440,000	440,000
MS Delta Region	910,000	910,000
Mississippi River Levees, LA	785,000	1,285,000
Old River	9,915,000	21,102,000
Mississippi River Levees (AR, LA, MS)	2,050,000	2,650,000
Revetments & Dikes (AR, LA, MS)	14,000,000	14,000,000
Dredging (AR, LA, MS)	5,600,000	5,600,000
Mapping (AR, LA, MS)	365,000	365,000
Inspection of Completed Works (AR, LA, MS)	375,000	375,000
Boeuf & Tensas Rivers	2,400,000	2,400,000

MISSISSIPPI RIVER AND TRIBUTARIES—SUMMARY OF RECOMMENDED APPROPRIATIONS FOR FISCAL YEAR 2004—STATE OF LOUISIANA—Continued

Louisiana	Administrative Budget	Louisiana Request
Red River Backwater	3,425,000	3,982,000
Lower Red River	2,207,000	2,207,000

NOTE: The projects listed above are only those in Louisiana (except when noted) and directly affect the State. We realize that there are other projects in the Valley. We endorse the recommendations of the Mississippi Valley Flood Control Association.

The following is a list of budgetary items that the State of Louisiana requests funding that differs from what is recommended in the Fiscal Year 2004 Administrative Budget or is an item of particular importance for the State. Those items that the State of Louisiana believes have been appropriately funded have not been included.

FLOOD CONTROL, NAVIGATION, HURRICANE PROTECTION AND WATER RESOURCES PROJECTS IN LOUISIANA—SUMMARY OF RECOMMENDED APPROPRIATIONS FISCAL YEAR 2004

Louisiana	Administrative Budget	Louisiana Request
General Investigations:		
Studies:		
Amite River & Tributaries, LA—Bayou Manchac	$100,000	$800,000
Atchafalaya River, Bayous Chene, Boeuf & Black, LA	150,000	1,000,000
Calcasieu Lock, LA	100,000	800,000
Calcasieu River Pass Ship Channel Enlargement, LA		200,000
GIWW—Ecosystem Restoration, LA	100,000	600,000
Hurricane Protection, LA	100,000	1,000,000
LCA—Ecosystem Restoration, LA	848,000	3,000,000
Plaquemines Parish, LA	100,000	500,000
Port of Iberia, LA	150,000	2,000,000
St. Bernard Parish Urban Flood Control, LA	100,000	500,000
St. Charles Parish Urban Flood Control, LA	100,000	450,000
St. John the Baptist Parish, LA	100,000	400,000
Southwest, AR (AR, LA)		400,000
Pearl River, Bogalusa (MS)		350,000
PED:		
West Shore-Lake Pontchartrain, LA		600,000
West Baton Rouge Parish, LA		1,500,000
New Studies:		
Bayou Nezpique Watershed, LA		100,000
Millennium Port, LA		100,000
Tangipahoa River Ecosystem Restoration, LA		100,000
Construction General:		
Comite River, LA	2,000,000	6,565,000
East Baton Rouge Parish, LA		4,600,000
Grand Isle, LA		200,000
Inner Harbor Navigation Canal Lock, LA (IWWTF & CG)	7,000,000	20,000,000
Lake Pontchartrain, LA	3,000,000	16,000,000
Larose to Golden Meadow, LA	461,000	1,200,000
MR–GO (Reevaluation Study)		250,000
New Orleans to Venice, LA	2,000,000	6,000,000
Southeast, LA	16,500,000	65,000,000
West Bank and Vicinity, New Orleans, LA	35,000,000	35,000,000
Red River Below Den Dam (AR, LA)		7,000,000
Red River Emergency (AR, LA)		10,000,000
J. Bennett Johnston Waterway, MS River to Shreveport	13,700,000	29,000,000
Ouachita River Levees		3,000,000
Operations & Maintenance General:		
Atchafalaya River, Bayous Chene, Boeuf & Black	19,367,000	24,367,000
Barataria Bay Waterway	286,000	4,909,000
Bayou Lacombe		315,000
Bayou Lafourche	133,000	1,221,000
Bayou Segnette	165,000	1,535,000
Bayou Teche	48,000	354,000

FLOOD CONTROL, NAVIGATION, HURRICANE PROTECTION AND WATER RESOURCES PROJECTS IN LOUISIANA—SUMMARY OF RECOMMENDED APPROPRIATIONS FISCAL YEAR 2004—Continued

Louisiana	Administrative Budget	Louisiana Request
Calcasieu River & Pass	12,064,000	20,559,000
Freshwater Bayou	1,558,000	3,558,000
Grand Isle, LA & Vicinity	.....	455,000
Gulf Intracoastal Waterway	19,418,000	29,028,000
Houma Navigation Canal	1,242,000	1,422,000
Mermentau River	2,651,000	4,651,000
Mississippi River, Baton Rouge to the Gulf	56,206,000	64,566,000
Mississippi River—Gulf Outlet	13,485,000	34,325,000
Mississippi River, Outlets at Venice	1,841,000	5,116,000
Waterway Empire to the Gulf	7,000	247,000
Waterway Intracoastal Waterway to Bayou Dulace	37,000	237,000
Ouachita & Black Rivers (AR, LA)	10,221,000	16,145,000
J. Bennett Johnston Waterway	12,013,000	19,900,000
Lake Providence Harbor	32,000	421,000
Madison Parish Port	13,000	80,000

NOTE: The projects listed above are only those in Louisiana (except where noted) and directly affect the State.

PREPARED STATEMENT OF THE UPPER MISSISSIPPI RIVER BASIN ASSOCIATION

INTRODUCTION

The Upper Mississippi River Basin Association (UMRBA) is the organization created in 1981 by the Governors of Illinois, Iowa, Minnesota, Missouri, and Wisconsin to serve as a forum for coordinating river-related State programs and policies and for collaborating with Federal agencies on regional issues. As such, the UMRBA works closely with the Corps of Engineers on a variety of programs for which the Corps has responsibility. Of particular interest to the basin states are the following:

INLAND WATERWAY TRUST FUND

The UMRBA opposes expanding the uses of the Inland Waterway Trust Fund to include operation and maintenance of the inland navigation system. The Inland Waterway Trust Fund was established in 1986 to help meet the Nation's navigation infrastructure investment needs for new construction and major rehabilitation on inland rivers. That dedicated revenue source, generated by taxes on commercial users of the inland waterway system, should not be diverted to uses other than those for which it was established. Moreover, the Corps has estimated that partially funding inland waterway O&M from the Inland Waterway Trust Fund would deplete the Fund entirely by the end of fiscal year 2006. Given the pressing navigation infrastructure needs in coming years, such a course would be imprudent.

ENVIRONMENTAL MANAGEMENT PROGRAM

For the past 16 years, the Upper Mississippi River System Environmental Management Program (EMP) has been the premier program for restoring the river's habitat and monitoring the river's ecological health. As such, the EMP is key to achieving Congress' vision of the Upper Mississippi as a "nationally significant ecosystem and a nationally significant commercial navigation system." Congress reaffirmed its support for this program in the 1999 Water Resources Development Act by reauthorizing the EMP as a continuing authority and increasing the annual authorized appropriation to $33.52 million. The UMRBA is pleased that the Administration's budget request, for the first time since the 1999 reauthorization of the program, includes nearly full funding for the EMP. The fact that the Administration has identified the EMP as one of eight Corps projects "that are the highest priorities in the Nation," is tribute to the EMP's success.

EMP habitat restoration projects include activities such as building and stabilizing islands, controlling water levels and side channel flows, constructing dikes, and dredging backwaters and side channels. At the recommended EMP funding level of $33.32 million, approximately $18.8 million would be allocated to the planning, design, and construction of such habitat projects. In particular, this level of investment will support planning work on 15 projects, design of 14 projects, and construction of 12 projects. Approximately $8.6 million would be devoted to the EMP

Long Term Resource Monitoring program (LTRMP) under a fully funded EMP budget of $33 million. At this funding level, data collection activities would be revived, including monitoring of water quality, sediment, fish, invertebrates, and vegetation. This monitoring, along 300 of the river system's 1,300 miles, had to be suspended in fiscal year 2003 due to lack of funding. If funding is not restored in fiscal year 2004, the LTRMP will need to be significantly restructured. Either the spatial extent of the program will need to be reduced, by eliminating field stations, or sampling intensity and rigor will need to be reduced. Neither alternative is sustainable and ultimately the ability of the program to fulfill its Congressionally mandated mission will be jeopardized.

Meeting the ecological restoration and monitoring needs on the Upper Mississippi River with renewed commitment and enhanced investment is critical, given the setback that the EMP suffered in fiscal year 2003, when funding was cut by nearly 40 percent. Within the next year, the Corps is expected to release its Navigation Study on the Upper Mississippi River and Illinois Waterway System, including a recommended plan for improving both the river navigation infrastructure and ecosystem. Yet, without a strong EMP program as one of the tools to meet river environmental needs, it is unlikely that the plan can be successfully implemented. The UMRBA thus strongly urges that the EMP be funded at $33.32 million in fiscal year 2004, as recommended by the President.

MAJOR REHABILITATION OF LOCKS AND DAMS

Given that most of the locks and dams on the Upper Mississippi River System are over 60 years old, they are in serious need of repair and rehabilitation. For the past 17 years, the Corps has been undertaking major rehabilitation of individual facilities throughout the navigation system in an effort to extend their useful life. This work is critical to ensuring the system's reliability and safety.

The UMRBA supports the Corps' fiscal year 2004 budget request for major rehabilitation work at 3 locks and dams on the Upper Mississippi River, including Lock and Dam 24, Lock and Dam 11, and Lock and Dam 3. Half of these amounts are to be provided by the Inland Waterways Trust Fund. Lock and Dam 24, located near Clarksville, Missouri, is nearing completion of the first phase of its $87 million rehabilitation. Lock wall concrete repairs are underway and expected to continue in fiscal year 2004. However, the fiscal year 2004 budget request of $13 million is a constrained funding level, which may require suspension of the contract, thus ultimately increasing project cost. UMRBA thus supports $17 million for rehabilitation of Lock and Dam 24, which is the fiscal year 2004 capability level.

Rehabilitation of Lock and Dam 11, located near Dubuque, Iowa, began in fiscal year 2002. The work includes repair and replacement of various miter and tainter gate components, culvert valve rehabilitation, and additional scour protection above and below the dam. The fiscal year 2004 budget request is $1.313 million, but the UMRBA supports the full capability funding of $6.52 million.

Lock and Dam 3, near Red Wing, Minnesota is located on a bend in the river, which causes an outdraft current that tends to sweep down-bound tows toward the gated dam. A related problem is maintaining the structural integrity of a set of 3 earthen embankments connecting the gated dam to high ground on the Wisconsin side. A reevaluation study is now underway to assess alternatives for addressing these related navigation safety problems and potentially combining the projects. The UMRBA supports fiscal year 2004 funding of $600,000, as requested by the President, to complete the study and begin work on plans and specifications.

OPERATION AND MAINTENANCE (O&M) OF THE UPPER MISSISSIPPI RIVER NAVIGATION SYSTEM

The Corps of Engineers is responsible for operating and maintaining the Upper Mississippi River System for navigation. This includes channel maintenance dredging, placement and repair of channel training structures, water level regulation, and the routine operation of 29 locks and dams on the Mississippi River and 7 locks and dams on the Illinois River. The fiscal year 2004 budget totals approximately $144 million for O&M of this river system, which includes $97.859 million for the Mississippi River between Minneapolis and the Missouri River, $18.099 million for the Mississippi River between the Missouri River and Ohio River, and $27.615 million for the Illinois Waterway.

These funds are critical to the Corps' ability to maintain a safe and reliable commercial navigation system. In addition, these funds support a variety of activities that ensure the navigation system is maintained while protecting and enhancing the river's environmental values. For example, O&M funds support innovative environmental engineering techniques in the open river reaches such as bendway weirs,

chevrons, and notched dikes that maintain the navigation channel in an environmentally sensitive manner. In addition, water level management options for a number of pools in the impounded portion of the river are being evaluated under the O&M program. Pool level management, such as that being tested in Pool 8 and proposed in Pools 6 and 9, is a promising new approach for enhancing aquatic plant growth and overwintering conditions for fish, without adversely affecting navigation.

Although the President's fiscal year 2004 funding request for O&M is slightly higher than fiscal year 2003 funding levels for most segments of the river system, unfortunately it is substantially less for the St. Paul District (MVP) and well below capability levels in the other two Districts.

[Millions of dollars]

Upper Mississippi River System O&M Accounts	Fiscal Year 2003 Omnibus	Fiscal Year 2004 Request	Fiscal Year 2004 Full Capability
Mississippi River Between MO River and Minneapolis:			
St. Paul District (MVP)	41.820	36.056	56.306
Rock Island District (MVR)	41.820	44.429	54.779
St. Louis District (MVS)	15.443	17.374	26.434
Mississippi River Between Ohio and MO Rivers	17.000	18.099	29.399
Illinois Waterway:			
Rock Island District (MVR)	25.154	25.726	35.026
St. Louis District (MVS)	1.683	1.889	1.889

The 23 percent reduction in Mississippi River O&M funding for the St. Paul District is of particular concern. This dramatic cut will eliminate the Mississippi River Endangered Species Recovery program and all maintenance construction contracts, with the exception of dredging and the continuing contract for the Lock and Dam 9 control systems and building replacement. Anticipated contract suspensions or cancellations include those for tow haulage unit replacements, Lock and Dam 4 dam gate painting, Lock and Dam 1 Ambursen Dam rehabilitation, Lock and Dam 6 fixed crest spillway repairs, Lock and Dam 10 control systems and building replacement, West Newton dredged material site unloading, and Upper St. Anthony Falls lock dewatering. In addition, the St. Paul District will be unable to address the recently-identified lock bulkhead problems at several facilities. It is projected that $31 million will be required over the next 5 years to construct bulkhead slots needed to safely dewater Locks 2–10 for repair.

The UMRBA supports increased funding for O&M of the Upper Mississippi and Illinois River System, particularly in the St. Paul District. Full capability funding in fiscal year 2004 for all three Upper Mississippi River districts totals $204 million.

NAVIGATION STUDY

The Upper Mississippi River and Illinois Waterway Navigation Study, which began in 1993, was restructured in 2001, in response to recommendations from the National Research Council and a new Task Force of senior leaders from 5 Federal agencies. Now that the study is on a new course, designed to address both navigation and environmental needs in an integrated fashion, the UMRBA is anxious to see the study brought to a successful and timely conclusion. On-going analyses are expected to yield results that will be used to develop tentative integrated plans by October 2003, incorporating both navigation improvements and ecosystem restoration. Fiscal year 2004 activities will thus focus on agency, stakeholder, and public review and input. This will be an extremely critical step in the collaborative process, which is expected to yield a Chief's Report by November 2004. In order to keep this process on track, it is essential to fully fund the Navigation Study, as requested by the President.

UPPER MISSISSIPPI RIVER COMPREHENSIVE PLAN (FLOOD DAMAGE REDUCTION)

Section 459 of the Water Resources Development Act of 1999 authorized the Corps to develop what is termed the "Upper Mississippi River Comprehensive Plan," the primary focus of which is systemic flood damage reduction and flood protection. In fiscal year 2003, a Project Management Plan (PMP) was developed and data gathering efforts are now underway. Funding is needed in fiscal year 2004 to continue the inventory and digital data coverages of floodplain land use, infrastructure, natural resources, and socioeconomic data and to begin the development and analysis of alternatives. Development of the Comprehensive Plan has been awaiting completion of the Flow Frequency Study, which will provide updated flood elevation pro-

files and models. That work is scheduled for completion this fiscal year, thus paving the way for the Comprehensive Plan to be undertaken in earnest.

The total study costs for the Upper Mississippi River Comprehensive Plan are estimated to be $5.13 million. In fiscal year 2002, the first year that funding was provided, $692,000 was allocated. In fiscal year 2003, an additional $1.814 million was provided. However, only $492,000 has been requested for fiscal year 2004. Unless additional funds are made available in fiscal year 2004, the study will not be completed in the 3-year time frame Congress directed when the study was first authorized in WRDA 1999, and later reaffirmed in WRDA 2000. Thus, the UMRBA supports full funding of $2.624 million in fiscal year 2004.

STREAM GAGING

The Corps of Engineers in cooperation with the USGS operates approximately 150 stream gages in the Upper Mississippi River Basin. In fiscal year 2003, the Corps' share of the cost of these gages is $1.888 million. Most of these stream gages are funded through the Corps' O&M account for the specific projects to which the gages are related. However, there are a number of gages that are not associated with a particular project. Thus, UMRBA supports the $500,000 requested under General Investigations to support the Corps' share of non-project USGS stream gages, many of which are located in the 5 States of the Upper Mississippi River Basin. In fiscal year 2003, approximately $127,000 was provided by these "General Coverage Funds" for gages in the St. Paul and Rock Island Districts.

PREPARED STATEMENT OF THE NATURE CONSERVANCY

Mr. Chairman and members of the subcommittee, I appreciate this opportunity to present The Nature Conservancy's recommendations for fiscal 2004 appropriations. We understand and appreciate that the subcommittee's ability to fund programs within its jurisdiction is limited by current national emergency but appreciate your consideration of these important programs.

The Nature Conservancy is an international, non-profit organization dedicated to the conservation of biological diversity. Our mission is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Conservancy has more than 1,000,000 individual members and 1,900 corporate associates. We have programs in all 50 States and in 28 foreign countries. We have protected more than 14.0 million acres in the United States and more than 80 million acres with local partner organizations worldwide. The Conservancy owns and manages 1,400 preserves throughout the United States—the largest private system of nature sanctuaries in the world. Sound science and strong partnerships with public and private landowners to achieve tangible and lasting results characterize our conservation programs.

The Nature Conservancy urges the Committee to support the following appropriation levels in the fiscal 2004 Energy and Water Development Appropriation bill:

CONSTRUCTION GENERAL PRIORITIES

Section 1135: Project Modification for the Improvement of the Environment.—The Section 1135 Program authorizes the Army Corps of Engineers (Corps) to restore areas damaged by existing Corps projects. This program permits modification of existing dams and flood control projects to increase habitat for fish and wildlife without interrupting a project's original purpose. The Nature Conservancy is the non-Federal cost share partner on several projects including the McKarran Ranch on the Truckee River, NV and Spunky Bottoms on the Illinois River, IL. The Nature Conservancy supports full funding of $25.0 million for the Section 1135 program in fiscal 2004, an increase over the administration's $14.0 million request.

Section 206: Aquatic Ecosystem Restoration.—Section 206 is a newer Corps program that authorizes the Corps to restore aquatic habitat regardless of past activities. The Nature Conservancy has several projects that put Section 206 to work restoring important habitat, including a $5 million project at Kankakee Sands in Indiana, and the Mad Island Aquatic Ecosystem Restoration Project in Texas. The Nature Conservancy supports full funding of $25.0 million for this valuable program in fiscal 2004, an increase over the administration's $10.0 million request.

Upper Mississippi River System Environmental Management Program.—The Environmental Management Program (EMP) is an important Corps program that constructs habitat restoration projects as well as conducts long-term resource monitoring of the Upper Mississippi and Illinois Rivers. The EMP operates as a unique Federal-State partnership affecting 5 States (Illinois, Iowa, Minnesota, Missouri,

and Wisconsin). The EMP was reauthorized in WRDA 1999 with an increased authorization in the amount of $33.3 million. The Nature Conservancy supports the President's request for full funding of $33.3 million for fiscal 2004.

Estuary Habitat Restoration Program.—The Estuary Habitat Restoration Program was established with the intent to restore 1 million acres of estuary habitat by 2010. This multi-agency program will promote projects that result in healthy ecosystems that support wildlife, fish and shellfish, improve surface and groundwater quality, quantity, and flood control; and provide outdoor recreation. The Nature Conservancy supports $10 million in fiscal 2004.

Everglades and South Florida Ecosystem Restoration.—The Everglades and South Florida Ecosystem Restoration program is designed to save and restore a critical natural treasure by acquiring high priority natural lands for protection, capturing runoff lost to tide, restoring natural hydropatterns essential for the overall heath of the system and for protecting water supplies for human use. The Nature Conservancy supports $45.0 million in fiscal 2004, an increase over the administration's $14.8 million request.

Florida Keys Water Quality Program.—The Florida Keys Water Quality Program is a unique restoration program designed to protect the fragile marine and coral ecosystem off the Florida Keys. This marine ecosystem is being impacted by excessive nutrients due to storm and waste water pollution. This program is cost shared with State and local interests to repair and improve the storm and wastewater treatment facilities on the Florida Keys to reduce the harmful levels of nutrient pollution. The Nature Conservancy, and its partners the State of Florida, Florida Keys Aqueduct Authority, Monroe County, City of Islamorada, City of Layton, City of Key Colony Beach, City of Marathon, and City of Key West, support $30.0 million for fiscal 2004.

Missouri River Fish and Wildlife Mitigation.—Created in WRDA 1986, the Missouri River Fish and Wildlife Mitigation Project is designed to reverse the negative environmental impacts of lower river channelization and bank stabilization through land acquisition from willing sellers. The Mitigation Project allows the Corps to restore chutes, side channels, and other off-channel floodplain habitat for river wildlife. The Nature Conservancy supports the President's request of $22.0 million for fiscal 2004.

Challenge 21: Riverine Ecosystem Restoration and Flood Hazard Mitigation Program.—The Water Resources Development Act (WRDA) 1999 authorized the Challenge 21 program as a 5-year, $200 million effort to enhance riverine ecosystems and encourage non-structural flood control projects. Challenge 21 directs non-structural flood control, in part through relocation of frequently flooded homes and businesses in smaller communities; and habitat restoration, including floodplain wetland restoration. The Nature Conservancy supports $5.0 million as an initial appropriation in fiscal 2004.

GENERAL INVESTIGATION PRIORITIES

White River Basin Comprehensive Study in Arkansas.—The White River Basin Comprehensive Study will enable the Corps to pull together the needs of myriad issues in the White River basin and permit a sensible long term plan for the region. The Nature Conservancy strongly supports $1.0 million in fiscal 2004 for the Army Corps of Engineers (Corps) to continue the Comprehensive Study in the White River basin, an increase over the administration's $300,000 request.

Savannah River Basin Comprehensive Water Resources Study.—The Savannah Basin Comprehensive Water Resources Study will enable the Corps and other partners to gain a better understanding of the influence of hydrologic processes such as timing, duration, frequency, magnitude, and rate of change of river flows on the river's ecology. The Nature Conservancy, under a cooperative agreement funded by the USACE and its cost share partners Georgia and South Carolina, is working to develop a set of ecosystem flow recommendations for the Savannah River Basin. Draft flow recommendations will be finalized by May 2003. The Nature Conservancy supports the President's request of $200,000 in fiscal 2004.

Sacramento and San Joaquin Comprehensive Basin Study.—The Sacramento and San Joaquin Comprehensive Basin Study is examining how to reduce the risk of flood while restoring the watershed's diverse ecosystem. The Nature Conservancy supports the President's request of $1.0 million in fiscal 2004.

Connecticut River Ecosystem Restoration Study.—The Connecticut River Ecosystem Restoration Study identified several ecosystem restoration opportunities along the mainstem of the Connecticut River. These funds will support studies of the ecological flow needs and initiate needed modeling on the Ashuelot River, NH and the West River, VT, part of the Sustainable Rivers Project, a unique collabora-

tion with the Army Corps of Engineers and The Nature Conservancy. The Sustainable Rivers Project seeks to reoperate 16 dams on 12 rivers to better meet the needs of the freshwater ecosystem while still abiding by the required purposes of the dams. The Nature Conservancy supports $315,000 for fiscal 2004, an increase over the administration's $115,000 request.

Southeast Oklahoma Feasibility Study.—The reconnaissance phase of the Southeast Oklahoma Feasibility Study determined there is Federal interest to preserve and/or restore the riverine ecosystem of the Kiamichi River Basin between the confluence of Jackfork Creek and the Kiamichi River and the upper reaches of Hugo Lake over the 50-year period of analysis. These funds will support studies of the ecological flow needs and initiate needed modeling on the Kiamichi River which is part of the Sustainable Rivers Project, a unique collaboration with the Army Corps of Engineers and The Nature Conservancy. The Sustainable Rivers Project seeks to reoperate 16 dams on 12 rivers to better meet the needs of the freshwater ecosystem while still abiding by the required purposes of the dams. The Nature Conservancy supports $100,000 for fiscal 2004, an increase over the administration's $50,000 request.

REGULATORY PROGRAM PRIORITIES

Southern California Special Area Management Plan (SAMP).—For the past 3 years, the Army Corps has been working with three Southern California counties to develop region-wide Special Area Management Plans that identify, delineate and plan for the conservation of wetlands within their jurisdictions. These SAMPs are a critical part of the regional effort to protect critical natural and resources to plan for continued economic growth in Southern California. They are emerging as an important planning tool that addresses streamlining of Federal wetlands regulations while promoting more effective wetlands conservation and providing long-term certainty for economic interests in the region. The Southern California SAMP process is being evaluated as a model for wetlands planning in other areas. The Nature Conservancy supports $1.9 million for fiscal 2004.

BUREAU OF RECLAMATION PRIORITIES

Recovery Implementation Program for Colorado Endangered Fish Species.—The Recovery Program is in its thirteenth year of working for the recovery of endangered fish species in the Upper Colorado River Basin. The Recovery Program serves as a model of successful cooperation between three States (Colorado, Utah, and Wyoming), Federal agencies, water development interests, power users and the environmental community in the recovery of four endangered fish species. The Nature Conservancy supports $5.9 million in fiscal 2004 for the Bureau of Reclamation.

Thank you for the opportunity to present The Nature Conservancy's comments on the Energy and Water Development Appropriations bill. We recognize that you receive many worthy requests for funding each year and appreciate your consideration of these requests and the generous support you have shown for these and other conservation programs in the past. If you have any further questions, please do not hesitate to contact us.

PREPARED STATEMENT OF SOUTHEASTERN FEDERAL POWER CUSTOMERS, INC.

Mr. Chairman and Members of the Subcommittee: On behalf of the Southeastern Federal Power Customers' ("SeFPC"), I am pleased to provide testimony in reference to the Administration's fiscal year 2004 budget request for the U.S. Army Corps of Engineers ("Corps"). My testimony will focus primarily on the budget request for the Corps' South Atlantic Division ("SAD") and the Great Lakes and Ohio River Division ("LRD").

The SeFPC has enjoyed a long and successful relationship with the Corps' SAD and LRD offices that has greatly benefited the approximately 5.8 million customers that are SeFPC members. As the Subcommittee is aware, the Corps is responsible for operating and maintaining Federal hydropower generating facilities. The Southeastern Power Administration ("SEPA") then markets the energy and capacity that is generated from the Federal projects in the Southeast. The SeFPC represents some 238 rural cooperatives and municipally owned electric systems in the States of Alabama, Georgia, Mississippi, Kentucky, North Carolina, South Carolina, Florida, Virginia, and West Virginia, which purchase power from SEPA. In some cases, SEPA supplies as much as 25 percent of the power and 10 percent of the energy needs of SeFPC customers. The SeFPC therefore greatly relies on the power generated at Corps' projects in the SAD and LRD.

DRASTIC CUTS IN THE CORPS' BUDGET

The members of the SeFPC are dedicated to providing reliable and economic power for their consumers. We therefore are concerned that the President has proposed a 30 percent reduction in the Corps' Operations & Maintenance ("O&M") account and 25 percent reduction in the Construction General Account for the upcoming fiscal year. With these reductions in funding, the Corps will not be able to undertake the O&M and Renewals & Replacements ("R&R") work necessary to ensure the long-term reliability of the Southeastern Federal hydropower facilities. We are particularly concerned about the effects of the proposed budget cuts on ongoing O&M work on hydropower infrastructure within the SEPA system of projects.

The proposed reductions will impede the Corps' work in the following SEPA projects: Walter F. George, J. Strom Thurmond, John H. Kerr, Allatoona, and Carters.

We also are concerned the President's budget request has zeroed out funds for construction at many of the projects operated by the Corps of Engineers. If enacted, the prohibition on "new starts" would delay the badly needed rehabilitation of generating facilities in the Cumberland River System and throughout the Southeast. Many of the hydroelectric generating facilities in SEPA's service area are nearing the 50-year mark, when major rehabilitations are critical if the project is to continue. Regrettably, the fiscal year 2004 budget request does not place a high priority on critical needs, such as: (1) $4 million for replacement of generating units at Wolf Creek project; and (2) $2.8 million to initiate replacement of generating units at Center Hill.

When a generating unit becomes inoperable, SEPA may be forced to purchase expensive replacement power which could result in a reduction of energy and capacity, possibly forcing the customer to purchase expensive capacity elsewhere. This has occurred so frequently in the last several years that the new SEPA rate design now includes a monthly payment provision by customers to cover any replacement power. Such a result is inappropriate because preference customers already have contributed to the Corps' O&M and R&R expenses, and in essence are double-charged. Even though excess payments pay down the debt associated with the projects, when generating units deteriorate, the O&M expenses greatly increase.

We are working on a long-term customer funding proposal that would facilitate this badly needed replacement and rehabilitation work at hydroelectric facilities in the LRD and SAD. We anticipate, however, that this long-term initiative will not be finalized for several years. In the meantime, some of these facilities will not be able to continue running without Federal funds.

ADMINISTRATION'S PROPOSAL FOR DIRECT FUNDING OF O&M

It is important to note that the relationship of the Corps, SEPA, and the SeFPC, forged pursuant to the Federal Power Marketing Program, is separate and distinct from other Corps activities. The Federal Power Marketing Program is designed to pay for itself—consumers are responsible for repaying the Federal taxpayer investment in the Corps' multi-purpose hydroelectric facilities. In the rates charged by SEPA to preference customers, a portion of each rate is devoted to future O&M and R&R activities at these facilities. In turn, these revenues are deposited in the Treasury and used to reimburse Congressionally appropriated funds for O&M and R&R expenses at the Corps' hydropower facilities. Funds collected from consumers may also be used for the joint costs of dam activities such as recreation, navigation and flood control. To date, preference customers have paid in SEPA rates over $108 million in excess of amounts spent by the Corps on O&M and R&R.

The Administration's fiscal year 2004 budget request proposes to alter this funding arrangement. This year's request includes a provision from the President's fiscal year 2003 request calling for direct funding of routine hydropower O&M for SEPA and the other Federal Power Marketing Administrations. While we support the concept of direct funding for O&M expenses, we have concerns with the Administration's proposal. We believe the proposal could limit customer oversight and involvement in how O&M funds are spent. Moreover, as we have discussed in greater detail above, some of the most pressing needs at the Nation's Federal hydropower facilities would require major rehabilitation and other new construction expenses not covered by the O&M proposal.

Thank you in advance for your consideration of our comments on the Administration's fiscal year 2004 budget request for the Corps. We look forward to working with you to ensure these critical needs are met.

PREPARED STATEMENT OF THE CITY OF LOS ANGELES BOARD OF HARBOR COMMISSIONERS, PORT OF LOS ANGELES

Chairman Domenici, and Members of the Subcommittee: We are Nicholas G. Tonsich, President of the City of Los Angeles Board of Harbor Commissioners, and Larry A. Keller, Executive Director of the Port of Los Angeles. Together, we oversee the activities of the Port of Los Angeles, the largest container seaport in the United States. Our testimony speaks in support of continuing the Federal role in carrying out the major navigation improvements underway at the Port, which underpin the United States' decisive role in global trade.

We thank your Subcommittee for its unwavering support of the now completed Pier 400 Deep-Draft Navigation and Landfill Project that was the first phase of the 2020 Infrastructure Development Plan at the Port. In fiscal year 2002, your Subcommittees appropriated $5.8 million, thereby enabling the Port and the Corps of Engineers to complete the Preconstruction and Engineering Design Phase resulting in the successful commencement of construction of the Channel Deepening Project, the second phase of strategic navigation improvements under the 2020 Plan. The construction contract was awarded in August 2002 and dredging began the following month. The project is scheduled for completion in fiscal year 2005.

Again, in fiscal year 2003, your Subcommittee demonstrated its decisive role in promulgating support for critical national water resources policy through the appropriation of scarce Federal funds to continue development of our Nations' navigation infrastructure program. The Subcommittee's fiscal year 2003 earmark of $12 million has kept the Channel Deepening Project on schedule.

Today, we respectfully submit testimony requesting full Federal funding in fiscal year 2004 for continued construction dredging of the Channel Deepening Project and for particular operations and maintenance requirements. Consistent with the goals and priorities of the Administration and the Congress, the Channel Deepening Project will provide significant economic return to the Nation, fulfill the commitment to environmental stewardship, and maintain essential readiness for our national security while fostering positive international relations. Therefore, we respectfully ask the Subcommittee to fully fund our fiscal year 2004 appropriations requests.

THE IMPORTANCE OF THE 2020 INFRASTRUCTURE DEVELOPMENT PLAN TO THE UNITED STATES ECONOMY

Dramatic increases in Pacific Rim and Latin American trade volumes have far exceeded our expectations! Consequently, infrastructure development at the Port of Los Angeles is now more critical than ever. More than 35 percent of containerized trade entering the United States through the San Pedro Bay port complex that comprises both the Port of Los Angeles and the Port of Long Beach. More than 20 percent represents container throughputs at the Port of Los Angeles, alone. In fact, the Port of Los Angeles handled more than 5.1 million TEUs in 2002. Those figures have escalated to more than 6 million TEUs of container cargo through the end of January of this year. These container throughputs represent $300 billion in goods coming into the United States, and are keen evidence of the unprecedented and continued growth for any American seaport—and the importance of the Port of Los Angeles in the national economy.

Pacific Rim and Mexican trade volumes with the United States are also at an all-time high. These increased trade volumes have solidified the Port of Los Angeles as a pivotal player in the global trading network. With a robust Asian economy, we can best describe the potential for increased two-way trade with the Pacific Rim region, alone, as colossal! These goods went on to stores and manufacturing plants across the United States, supporting jobs and local economies. As was evidenced by the recent West Coast labor lock out, the indirect impacts to our national economy are significant, and are a result of the leading position the Port of Los Angeles enjoys in the national and world economies.

In the late 1970s, the Port of Los Angeles quite accurately forecast the current surge in the international trade needs of both the Southern California region and the Nation. In the early 1980s, the Port entered a long-term cooperative planning effort with the Corps of Engineers, known as The 2020 Infrastructure Development Plan. Designed to meet the extraordinary infrastructure demands placed on it in the face of the continued explosion in global trade, the 2020 Plan acknowledges the phenomenal growth of trade through the Port of Los Angeles. Further, the 2020 Plan has become a blueprint for the infrastructure development of other ports and adaptation to changes in maritime technology and to the projected growth in trade volumes experienced by most ports nationally. The Channel Deepening Project marks

the second phase of the 2020 Plan begun with the Pier 400 Deep-Draft Navigation and Landfill Project. The Port of Los Angeles is moving forward with the 2020 Plan.

THE CHANNEL DEEPENING PROJECT

The Channel Deepening Project began in February 1999 when the Port and the Los Angeles District Corps executed a Memorandum of Agreement (MOA). The MOA expedited the preliminary study phase required to engage the Corps in the Channel Deepening Project, a Federal navigation improvement project. In anticipation of a favorable Chief of Engineers' Report, Congress authorized the Channel Deepening Project in The Water Resources Development Act of 2000. The Corps of Engineers approved the Feasibility Study on December 29, 2000, thereby enabling the Channel Deepening Project to proceed.

In fiscal year 2004, the Port of Los Angeles requests that your Subcommittee include an appropriation of $35,000,000 for the Federal share of continued construction dredging of the Channel Deepening Project. The Corps of Engineers' has estimated the total project cost of approximately $194,000,000[1] with a Federal share of $57,400,000, and a local share of $136,600,000.

We cannot over emphasize the critical importance of continuing construction of the Channel Deepening Project in fiscal year 2004. At −45 Mean Lower Low Water (MLLW), the Main Channel is too shallow to accommodate the new state-of-the-art container vessels designed to draft as much as −48 feet and hold containers than 6,000 TEUs. The Chief of Engineers' Report, issued in December 2000, concurred with the Feasibility Study's recommendation that the Corps dredge the Channel to at least −53 feet, including a modest allowance for varied tidal conditions and under-keel clearance. The project also includes dredging approximately 8.4 million cubic yards of sediment from the Turning Basin, the West and East Basins, and the East Basin Channel. Of the major container shipping lines that currently call at the Port of Los Angeles, five have vessels that draft −46 feet when fully laden. Consequently, they call with only partial loads to be able to safely navigate the Harbor's channels. While unavoidable, this makes for an inefficient shipping system and opens the door to cargo diversion to Vancouver, Canada or other non-U.S. West Coast ports.

Simply, Mr. Chairman, there are no other ports on the West Coast of the United States with the current infrastructure capacity to serve these container ships in the Pacific Rim trade or to absorb the volume of container throughputs. These state-of-the-art container ships represent the new competitive requirements for international shipping efficiencies in this century. It is imperative that Congress appropriate the requested funding that will enable the Channel Deepening Project to continue, with full funding that will keep the project on schedule for completion in fiscal year 2005.

CONTINUED FUNDING OF THE LOS ANGELES HARBOR MODELS

Furthermore, the Port of Los Angeles also requests a total appropriation of $3,170,000 for the San Pedro Bay Models at the Corps of Engineers' Waterways Experiment Station (WES) at Vicksburg, Mississippi. This funding is critical for the Corps to maintain the Los Angeles Harbor Model studies and the Wave Gauge Program. Our request includes $170,000 for the maintenance of the physical model of the San Pedro Bay to maintain operational readiness for the continued study of navigation improvements at the Port, and $3,000,000 to upgrade the wave gauges, wave generators, and computer systems that are now technologically outdated and beyond their physical service life.

The information derived from these study tools is critical to the validation of the numerical and physical models used for the design of ongoing projects under the 2020 Plan of the Port. For example, during the state-of-the-art design of the Pier 400 Project, the scientists and engineers at WES, the Port of Los Angeles and the Corps' Los Angeles District used eight separate, but related models, to site the land reclamation element of the project and its effect on tidal resonance on container ships at dock. As a result, maintenance of the hydraulic and physical models at WES, and their prototype data acquisition facilities, continue to be an essential resource for the Corps of Engineers and the Port of Los Angeles.

THE ECONOMIC IMPACT OF THE 2020 INFRASTRUCTURE DEVELOPMENT PLAN

As we have testified before, cargo throughput for the Port of Los Angeles has a tremendous impact on our national economy. This fact cannot be over emphasized.

[1] Escalated through end of construction in fiscal year 2005, per OMB.

The ability of the Port to meet the spiraling demands of the phenomenal growth in global trade through its facilities is directly dependent upon the construction of sufficiently deep navigation channels that will accommodate the largest state-of-the-art deep-draft cargo container ships that are already in service. These new ships provide greater efficiencies in cargo transportation, thereby offering American consumers lower prices on imported goods and exports that are more competitive from the United States to foreign markets. However, for American seaports to remain abreast of these industry trends, we must immediately make the necessary infrastructure improvements that will enable the Port to participate in this rapidly changing global trading arena.

The Channel Deepening Project is clearly a commercial navigation project of national economic significance and one that will yield exponential economic returns to the United States—and the Southern California region—well into the future. The national economic benefits are evidenced by the creation of more than one million permanent well-paying jobs across the United States; more than $1 billion in wages and salaries; and, local, State and Federal sales and income tax revenues, including increased U.S. Customs Service revenues, deposited into the Federal treasury. The return on the Federal investment is real and quantifiable, and we expect it to surpass the cost-benefit ratio as determined by the Corps of Engineers' project Feasibility Study many times over. The Federal investment in the Channel Deepening Project will ensure that the Port of Los Angeles, the Nation's largest container seaport, remains at the forefront of the new global trade network well into the 21st century.

IN SUMMARY

Mr. Chairman, the Port of Los Angeles respectfully urges your Subcommittee to include the following appropriations earmarks in the fiscal year 2004 Budget to support the U.S. Army Corps of Engineers navigation construction projects on behalf of the Port of Los Angeles:

—$35,000,000 to continue construction dredging of the Channel Deepening Project;

—$170,000 for ongoing maintenance of the Los Angeles Harbor Model at WES; and,

—$3,000,000 to upgrade wave gauge and generators of the Los Angeles Harbor Model at WES.

Thank you, Chairman Domenici, for the opportunity to submit this testimony in support of continued Congressional support of the Channel Deepening Project and other important Federal navigation projects at the Port of Los Angeles. The Port has long valued the support of your Subcommittee and its appreciation of the significant role the port industry plays in maintaining the economic vitality of the United States, and, in particular, the role of the Port of Los Angeles in contributing to this country's economic vigor and national security.

PREPARED STATEMENT OF THE LOUISIANA GOVERNOR'S TASK FORCE ON MARITIME INDUSTRY

As Chairman of the Louisiana Governors Task Force on Maritime Industry, I hereby submit testimony to the Senate Subcommittee on Energy and Water Development on behalf of the ports on the lower Mississippi River, the J. Bennett Johnston Waterway and the Calcasieu River waterway and the maritime interests related thereto of the State of Louisiana relative to Congressional appropriations for fiscal year 2004.

The U.S. Army Corps of Engineers reports that in 2001 a total of 420.3 million tons of foreign and domestic waterborne commerce moved through the consolidated deepwater ports of Louisiana situated on the lower Mississippi River between Baton Rouge and the Gulf of Mexico. Deepening of this 232-mile stretch of the River to 45 feet has been a major factor in tonnage growth at these ports. Due in large part to the efforts of Congress and the New Orleans District of the Corps, Louisiana's ports and the domestic markets they serve can compete more productively and effectively in the global marketplace. Ninety-one percent of America's foreign merchandise trade by volume (two-thirds by value) moves in ships, and 20.8 percent of the Nation's foreign waterborne commerce passes through Louisiana's ports. Given the role foreign trade plays in sustaining our Nation's growth, maintaining the levels of productivity and competitiveness of Louisiana's ports is essential to our Nation's continued economic well-being.

In terms of transportation services and global access, Louisiana ports enjoy a distinct competitive advantage. Hundreds of barge lines accommodate America's water-

borne commerce on the lower Mississippi River. The high level of barge traffic on the river is indicated by the passage of more than 222,500 barges through the Port of New Orleans annually. In 2001, 2,020 ocean-going vessels operated by more than 100 steamship lines serving U.S. trade with more than 150 countries called at the Port of New Orleans. The Port's trading partners include: Latin America (40.3 percent); Asia (25.3 percent); Europe (23.6 percent); Africa (9.4 percent) and North America (1.5 percent). During the same year, 5,621 vessels called at Louisiana's lower Mississippi River deepwater ports.

The foreign markets of Louisiana's lower Mississippi River ports are worldwide; however, their primary domestic market is mid-America. This heartland region currently produces 60 percent of the Nation's agricultural products, one half of all of its manufactured goods and 90 percent of its machinery and transportation equipment.

The considerable transportation assets of Louisiana's lower Mississippi River ports enable mid-America's farms and industries to play a vital role in the international commerce of this Nation. In 2001, the region's ports and port facilities handled 232.5 million tons of foreign waterborne commerce. Valued at $38.4 billion, this cargo accounted for 18.1 percent of the Nation's international waterborne trade and 26.7 percent of all U.S. exports. Bulk cargo, primarily consisting of tremendous grain and animal feed exports and petroleum imports, made up 91.2 percent of this volume. Approximately 49 million tons of grain from 17 States, representing 58.5 percent of all U.S. grain exports, accessed the world market via the 10 grain elevators and midstream transfer capabilities on the lower Mississippi River. This same port complex received 94 million short tons of petroleum and petroleum products, 15.9 percent of U.S. waterborne imports of petroleum products.

In 2001, public and private facilities located within the jurisdiction of the Board of Commissioners of the Port of New Orleans, the fourth largest port in the United States, handled a total of 85.6 million tons of international and domestic cargo. International general cargo totaled 8.9 million tons. Although statistically dwarfed by bulk cargo volumes, the movement of general cargo is of special significance to the local economy because it produces greater benefits. On a per ton basis, general cargo generates spending within the community more than three times higher than bulk cargo. Major general cargo commodities handled at the Port include: iron and steel products; coffee; forest products; copper; aluminum products; and natural rubber.

Fostering the continued growth of lower Mississippi River ports is necessary to maintain the competitiveness of our Nation's exports in the global marketplace and, consequently, the health of the Nation's economy. Assuring deep-water access to ports has been a priority of our trading partners around the world. Moreover, an evolving maritime industry seeking greater economies of scale continues to support construction of larger vessels with increased draft requirements. Because it facilitated the provision of deepwater port access, passage of the Water Resources Development Act of 1986, played a most significant role in assuring the competitiveness of ports on the lower Mississippi river and throughout the United States.

By December 1994, the Corps completed dredging of the 45-foot channel from the Gulf of Mexico to Baton Rouge, LA (Mile 233 AHP). Mitigation features associated with the first phase of the channel-deepening project in the vicinity of Southwest Pass of the river, accomplished in 1988, are nearing completion. We urge the continued funding for this work in fiscal year 2004 to complete construction of improvements to the Belle Chasse water treatment plant. This will complete the approximate $15 million in payments to the State of Louisiana for construction of a pipeline and pumping stations to deliver potable fresh water to communities affected by saltwater intrusion. We further urge that the Corps be provided funding to proceed with design studies for Phase III, which will allow deepening of the river to the 55-foot authorized depth.

Along with the Port of New Orleans, the Port of South Louisiana, the Nation's largest port with 212.6 million tons of foreign and domestic cargo in 2001, and the Port of Baton Rouge, the Nation's tenth largest port with 61.4 million tons of foreign and domestic cargo in 2001, and other lower Mississippi River ports are dependent upon timely and adequate dredging of Southwest Pass to provide deep draft access to the Gulf of Mexico. The President's fiscal year 2004 Budget is $56,206,000 under O&M General. We, however, strongly recommend that the Corps be funded $64,566,000 to repair and construct foreshore dikes, lateral dikes and jetties.

Maintenance of adequate depths and channel widths in the Mississippi River Gulf Outlet Channel (MRGO) is also of great concern. This channel provides deep draft access to the Port of New Orleans principal container terminals and generates an annual economic impact of nearly $800 million. In 2001, 418 general cargo vessels calling on the Port's MRGO terminals accounted for 31.2 percent of the general

cargo tonnage handled over public facilities at the Port and 68.7 percent of Louisiana's containerized cargo.

Because of the MRGO's demonstrated vulnerability to coastal storm activity, annual channel maintenance dredging and bank stabilization are essential to assure unimpeded vessel operations. The President's fiscal year 2004 Budget is $13,485,000 under O&M General. We, however, strongly recommend that the Corps be funded $34,325,000 for maintenance dredging and bank stabilization.

We recognize the need for the Corps to evaluate the feasibility of continuing the maintenance of a deep draft channel in the MRGO because of increased maintenance costs and environmental impacts. Unfortunately, the President's fiscal year 2004 Budget does not include funding for such a study. We, however, strongly recommend that the Corps be funded $813,000 to complete the MRGO Reevaluation Study. It is important to note that although the Port of New Orleans plans to relocate much of its container terminal capacity to the Mississippi River, a determination to discontinue maintenance of the MRGO's deep draft channel must be preceded by completion of the IHNC Lock replacement project to assure continued deep draft access to the many businesses serviced by the MRGO.

The Inner Harbor Navigation Canal (IHNC) Lock is a critical link in the U.S. Inland Waterway System as well as the Gulf Intracoastal Waterway (GIWW), and provides a connection between the Port of New Orleans Mississippi River and IHNC terminals. In 1998, the Corps approved a plan for replacement of this obsolete facility. The Corps estimates that the lock replacement project will have a cost-benefit ratio of 2.1 to one and will provide $110 million annually in transportation cost savings. To minimize adverse impacts to adjacent neighborhoods, the project includes a $37 million Community Impact Mitigation Program. The President's fiscal year 2004 Budget of $7,000,000 for the IHNC Lock Replacement will pay for engineering and design work, construction, and the mitigation program, all on a delayed basis. We, therefore, strongly recommend that the Corps be funded $20,000,000 to complete demolition on the east side, and advance engineering and design, levee contracts, and mitigation measures.

Operation and maintenance of the Mississippi River Outlets at Venice, LA are essential to providing safe offshore support access to energy-related industries. In 2001, these channels accommodated cargo movements exceeding 3 million tons. In addition to routine traffic, shallow draft vessels use Baptiste Collette Bayou as an alternate route between the MRGO, GIWW and the Mississippi River. The President's fiscal year 2004 Budget is $1,841,000 under O&M General. We, however, strongly recommend that the Corps be funded $5,116,000 to perform critical maintenance dredging.

More than 74.9 million tons of cargo transverse the GIWW in the New Orleans District annually. The President's fiscal year 2004 Budget is $19,418,000 under O&M General. We, however, strongly recommend that the Corps be funded $29,028,000 to perform critical maintenance at the navigation locks.

The President's fiscal year 2004 Budget for the Bayou Sorrel Lock, LA project is $707,000 in GI funds. To assure the efficient flow of commerce on the GIWW, we urge that the Corps be funded $707,000 to advance the completion of the pre-engineering design for replacement of the Bayou Sorrel Lock, Morgan City-to-Port Allen alternate route. We further recommend that the Corps be funded $800,000 in GI funds to advance the completion of the feasibility phase of the study to replace Calcasieu Lock on the GIWW by 3 years.

The Port of Lake Charles, Louisiana, is served by the Calcasieu River, which often does not meet project depth and width requirements. This Port is one of Louisiana's major deep-water ports, benefitting the economy of the State and the Nation. In 2001, the Port handled 37.1 million tons of import cargo and 17.3 million tons of export cargo. The Port and private facilities along this waterway provide thousands of jobs for the Lake Charles area. In 2001, 1,284 ships and 7,893 barges used the Calcasieu River waterway. The Port area's growth and continued success depends on the provision of a reliable and safe channel at full project dimensions. The President's fiscal year 2004 Budget is $12,064,000 under O&M General. We, however, strongly recommend that the Corps be funded $20,559,000 to construct revetment at Devil's Elbow.

One additional project warrants consideration. The J. Bennett Johnston Waterway, Mississippi River to Shreveport, LA Project provides 236 miles of navigation improvements, 225 miles of channel stabilization works and various recreational facilities. Project completion will stimulate economic growth along the Red River Basin and increase cargo flows through the deep draft ports on the lower Mississippi River. The President's fiscal year 2004 Budget is $13,700,000 (Construction General) and $12,013,000 (O&M General). We, however, strongly recommend that

the Corps be funded $29,000,000 (Construction General) and $19,900,000 (O&M, General) to complete work already underway.

The need and impetus to reduce the Federal budget is certainly acknowledged; however, reduced funding on any of the above projects will result in decreased maintenance levels which will escalate deterioration and, ultimately, prevent them from functioning at their full authorized purpose. Reduction in the serviceability of these projects will cause severe economic impacts not only to this region, but to the Nation as a whole that will far outweigh savings from reduced maintenance expenditures. Therefore, we reiterate our strong recommendation that the above projects be funded to their full capability.

1. Mississippi River Ship Channel, Gulf to Baton Rouge, LA.—Recommend the Corps be funded $196,000 (Construction General) to perform required work on the saltwater intrusion Phase 1 mitigation plan.

2. Mississippi River, Baton Rouge to the Gulf, Maintenance Dredging.—The President's Fiscal Year 2004 Budget is $56,206,000 under O&M General. Recommend that the Corps be funded $64,566,000 to construct foreshore rock dike, soft dike at deep draft crossings, and to repair Southwest Pass pile dike and tie-in.

3. Mississippi River Gulf Outlet (MRGO), LA, Maintenance Dredging.—The President's Fiscal Year 2004 Budget is $13,485,000 under O&M General. Recommend that the Corps be funded $34,325,000 for maintenance dredging and bank stabilization.

4. Inner Harbor Navigation Canal (IHNC) Lock, LA.—The President's Fiscal Year 2004 Budget is $7,000,000 in Construction General funds. Recommend that the Corps be funded $20,000,000 to continue construction and mitigation for the IHNC Lock replacement.

5. Mississippi River Outlets at Venice, LA.—The President's Fiscal Year 2004 Budget is $1,841,000 under O&M General. Recommend that the Corps be funded $5,116,000 to perform critical maintenance dredging and to repair jetties.

6. Bayou Sorrel Lock, LA.—The President's Fiscal Year 2004 Budget is $707,000 under General Investigation Studies. Recommend that the Corps be funded $707,000 to advance pre-engineering design for the replacement of Bayou Sorrel Lock on the Gulf Intracoastal Waterway (GIWW), Morgan City-to-Port Allen alternate route.

7. Gulf Intracoastal Waterway, LA and TX.—The President's Fiscal Year 2004 Budget is $19,418,000 under O&M General. Recommend that the Corps be funded $29,028,000 to perform critical maintenance at the navigation locks.

8. Calcasieu Lock, LA.—The President's Fiscal Year 2004 Budget is $100,000 in GI funds. Recommend that the Corps be funded $800,000 to advance the feasibility phase of the study to replace Calcasieu Lock on the GIWW.

9. Calcasieu River and Pass, LA.—The President's Fiscal Year 2004 Budget is $12,064,000 under O&M General. Recommend that the Corps be funded $20,559,000 to construct revetment at Devil's Elbow, perform critical dredging and maintenance of disposal area.

10. MRGO Reevaluation Study, LA.—The President's Fiscal Year 2004 Budget has no funding for this study. Recommend that the Corps be funded $813,000 (Construction General). Funds are needed to complete a study to determine the advisability of maintaining the 36-foot depth of the MRGO.

11. J. Bennett Johnston Waterway, Mississippi River to Shreveport, LA.—The President's Fiscal Year 2004 Budget is $13,700,000 (Construction General) and $12,013,000 (O&M General). Recommend that the Corps be funded $29,000,000 (Construction General) and $19.9 million (O&M, General) to complete work already underway.

PREPARED STATEMENT OF THE PORT OF NEW ORLEANS

The Port of New Orleans is located at the terminus of the most extensively developed waterway system in the world, the 14,500 mile inland waterway system of the United States. The Port, via the Mississippi River and the Mississippi River Gulf Outlet, serves as the gateway between America's heartland and the global marketplace.

The Louisiana Governor's Task Force on the Maritime Industry has submitted a statement in support of fiscal year 2004 Congressional appropriations for the U.S. Army Corps of Engineers. This statement addresses Corps activities on the Lower Mississippi River and connecting waterways, the J. Bennett Johnston Waterway, and the Calcasieu River Waterway. We endorse the statement of the Governor's Task Force and the funding levels recommended therein.

We greatly appreciate the outstanding support and cooperation received over many years from the subcommittee, and look forward to working with you on these vitally important projects.

PREPARED STATEMENT OF THE STEAMSHIP ASSOCIATION OF LOUISIANA

I am President of the Steamship Association of Louisiana (SALA). Our Association represents ship owners, operators, and agents who handle the majority of the 7,000 ocean-going vessels that call Louisiana's deep-water ports each year. SALA is dedicated to the safe, efficient movement of maritime commerce through the State's deep-water ports. We endorse the testimony of Mr. Donald T. Bollinger, Chairman of the Governor's Task Force on Maritime Industry.

Channel stabilization and maintenance dredging in Southwest Pass (SWP) are critical to maintaining project draft. Project draft ensures the Mississippi River's deep-water ports will continue to handle the country's foreign and domestic waterborne commerce in the most cost-effective way possible.

For years we have urged this Committee to provide funds to maintain project draft at SWP. You have responded, and your wisdom has benefitted the entire American heartland served by the Mississippi River system. SWP was greatly restricted throughout the 1970's. From 1970 to 1975, the channel was at less than project draft 46 percent of the time. In 1973 and 1974, the channel was below the 40-foot project draft 70 percent of the time. During some periods, drafts were limited to 31 feet. Fortunately, those conditions have not recurred because of a combination of factors: Your help, and the constant vigilance of the Pilots, the Corps, and the maritime community. The years 1990 through 2002 show a tremendous improvement in channel stability. The funding you provided was money well spent. The repairs to the jetties and dikes, and the Corps' ability to rapidly respond to shoaling, have been instrumental in maintaining project dimensions. However, the lack of available hopper dredges has, at times, threatened the integrity of the channel.

The Pilots have taken advantage of tidal flows and other factors to recommend the maximum draft possible consistent with safe navigation. This results in additional sales and increased competitiveness for U.S. products on the world market. Industry's partnership with you has kept Mississippi River ports competitive and attractive to vessels. An additional 12 inches of draft to a large vessel with a loading capacity of 250 metric tons per inch is an added 3,000 tons of cargo. As of this writing, freight rates for grain moving from the Mississippi River to the Far East were $24 per metric ton before world events increased them to $30 per ton as this letter is written. Using $24 per ton, each foot of draft represents an additional $72,000 in vessel revenue, or $360,000 for the five additional feet over the old 40-foot project draft that the new channel provides.

The funds we request for maintenance dredging ($64.6 million, $8.4 million over the President's request) are essential for the Corps to maintain a reliable channel and respond rapidly to potential problems. This builds the confidence of the bulk trade in a reliable Mississippi River draft, which is critically important. Much of Louisiana's bulk trade is exported agricultural products and imported petroleum products. The export commodities are neither captive to Louisiana nor the United States if they can be shipped from competing countries at a consistently lower cost.

The deeper the channel, the more important channel stabilization becomes. Adequate channel stabilization work minimizes the maintenance cost of the deeper channel—a cost-effective investment. The faster the project is stabilized, the faster and greater the benefits of reduced O&M costs will be realized. Also, we recommend that the Corps conduct research on prototype dredging techniques.

Funds are also needed for dustpan dredges to work the crossings above New Orleans. These crossings control the draft to the Ports of South Louisiana and Baton Rouge, home to eight of our ten major grain elevators plus many mid-stream and other bulk cargo facilities. This area caters to the bulk trade and must have a stable channel depth consistent with the depth at Southwest Pass. Only two dustpan dredges in the world are available to maintain the deep-draft crossings between New Orleans and Baton Rouge. There are times when a high river is followed by a rapid drop in the river's stage. In such cases, the dustpan dredges may not be available, or both dredges may not be capable of restoring the 12 crossings within a reasonable time. When this happens, hopper dredges are used to assist in the work.

For all of the above reasons, we request full funding for the mitigation features of the O&M General, 45-foot Mississippi River project. We also request that the New Orleans District receive an additional $32.1 million to address the shortfall carried forward from fiscal year 2002. These funds were not provided by Congress

in an fiscal year 2002 supplemental appropriation as requested by the Corps and are seriously impacting needed channel maintenance on the Mississippi River, the Mississippi River-Gulf Outlet (MR-GO) and the Calcasieu Ship Channel in fiscal year 2003. To "catch up" with the dredging needs on these channels, we respectfully request this additional funding in fiscal year 2004 if it is not provided in a fiscal year 2003 supplemental appropriation.

We also support Phase III of the Mississippi River channel deepening project and urge that the Corps be funded to proceed with design studies for the 55-foot channel, Baton Rouge to the Gulf of Mexico.

The MR-GO is also a viable channel for the State of Louisiana. The funds you provided in past fiscal years have allowed the Corps to improve the channel considerably. However, the channel width has remained limited primarily because of erosion. For safety reasons in this narrow channel, one-way traffic restrictions apply to vessels with a draft of 30 feet or more, causing delays to the tightly-scheduled container traffic using the MR-GO. These specialty vessels serving the Port's facilities are becoming larger. The highest wages under the International Longshoremen's Association's contract ($27 per straight-time hour) is paid for work at the MR-GO container facilities. Anything that threatens the MR-GO jeopardizes these high-paying jobs, which are held mostly by minority workers.

To improve safety on the MR-GO and protect Louisiana's container trade (and the well-paying, minority employment it produces), we request that the Corps be funded at $34.3 million for the MR-GO in fiscal year 2004. This will allow annual maintenance dredging, north and south bank stabilization, and jetty maintenance, which is essential to provide the stability needed for vessel and port operations.

With facilities located on both the MR-GO and the Mississippi River, an adequate route between the two is essential for efficient transit between these facilities. The shortest route is the inadequate, antiquated Inner Harbor Navigation Canal (IHNC) Lock built in the 1920's with a width of 75 feet and limited depth of 30 feet. Its maximum capacity has long been exceeded. The average waiting time for passage through the Lock has increased from 8½ hours in 1985 to about 12 hours at present; however, we understand that waiting time can be more than a day in some instances. A much larger ship lock is necessary to accommodate today's traffic.

The replacement project for the IHNC Lock is important to the ports on the lower Mississippi River and to the Nation's commerce since it is on the corridor for east/west barge traffic. Without full funding, the project will be delayed and increase the overall cost of the project. We urge Congress to provide the Corps' full fiscal year 2004 capability ($20 million) for this important project to insure its completion. Delays are unthinkable since the new lock is long overdue.

The Port of Lake Charles, Louisiana, is served by the Calcasieu River, which is often below project depth and width. This is another of Louisiana's major deep-water ports that benefits the economy of the State and the Nation. The public and private facilities along this waterway provide thousands of jobs for the Lake Charles area. This channel, because of its project deficiencies, requires one-way traffic for many ships, causing delays that disrupt cargo operations. This is costly and inefficient for industry. The Port area's growth and continued success depends on a reliable and safe channel that should be at full project. We request funding to the full capability of the Corps ($20.6 million) to maintain this channel at its project dimensions and to construct needed revetments at Devil's Elbow.

The J. Bennett Johnston Waterway, Mississippi River to Shreveport, Louisiana, Project is directly related to our deep-water ports. The continuation and completion of this work will stimulate the economy all along the Red River Basin with jobs and additional international trade. This increased trade will help the Port of Shreveport and the ports on the lower Mississippi River, providing needed growth and benefitting the States of Louisiana, Texas, Oklahoma, and Arkansas, which are served through the Shreveport distribution center. Therefore, we strongly recommend that the Corps be funded to full capability for fiscal year 2004 at $29 million for Construction General and $19.9 million for O&M General to complete work already underway.

PREPARED STATEMENT OF THE PORT OF SOUTH LOUISIANA

The Port of South Louisiana very much appreciates being given the opportunity to submit this statement and supportive material to signify its endorsement of the statement of Mr. Donald T. Bollinger, Chairman of the Louisiana Governor's Task Force on Maritime Industry.

The Port of South Louisiana is comprised of nearly 54 miles of Mississippi River north of New Orleans and south of Baton Rouge, with more than 50 private and

public docks and wharves. The Port of South Louisiana is the largest tonnage port in the United States and third largest in the world, handling more than 260 million short tons of cargo during 2002. Of this total tonnage, more than 133 million tons are shipped in international trade by deep water vessel and 127 million tons are shipped in domestic trade by vessels and barges. Each year more than 100,000 barges transport cargo at the Port of South Louisiana and more than 4,300 ships call at the public and private wharves of our Port.

A recent study by Dr. Tim Ryan of the University of New Orleans indicates that nearly 20 percent of the domestic gross product of the State of Louisiana is dependent upon the maritime industry and one of eight jobs is created from the economic activity of the maritime industry. Attached you will find statistics which have been developed from the records of the Port of South Louisiana.

The Port of South Louisiana strongly urges the Congress to fund all of the following projects.

—Mississippi River Ship Channel, Gulf to Baton Rouge, LA;
—Mississippi River, Baton Rouge to the Gulf, Maintenance Dredging;
—Mississippi River-Gulf Outlet (MR-GO), LA., Maintenance Dredging;
—Inner Harbor Navigation Canal (IHNC) Lock, LA;
—Mississippi River Outlets at Venice, LA;
—Bayou Sorrel Lock, LA;
—Gulf Intracoastal Waterway, LA and TX;
—Calcasieu Lock, LA;
—Calcasieu River & Pass, LA;
—Mississippi River-Gulf Outlet (MR-GO) Reevaluation Study, LA;
—J. Bennett Johnston Waterway, Mississippi River to Shreveport.

The Port of South Louisiana strongly believes that the funding and completion of the above maritime projects will enhance the ability of the ports in the region to be competitive in the global economy and will enhance the ability of domestic industry and agriculture to compete in the export of its products.

PREPARED STATEMENT OF THE PORT OF GREATER BATON ROUGE

Maintaining open navigable channels for the Mississippi River and its tributaries is vital to the Nation's commerce and national interest. Therefore, the Port of Greater Baton Rouge respectfully requests that you and your committee give favorable consideration to the following U.S. Corps of Engineers projects:

1. *Mississippi River Ship Channel—Gulf to Baton Rouge, Louisiana (Construction General)*.—The Port of Greater Baton Rouge supports full funding of $196,000 in fiscal year 2004 to the U.S. Corps of Engineers General Construction Budget. These funds will provide for the required work on the saltwater intrusion mitigation plan and the Phase I design studies for the 55-foot channel. Both projects are important to the future success of the Port of Greater Baton Rouge.

2. *Mississippi River—Baton Rouge to the Gulf—Maintenance Dredging*.—The President's Fiscal Year 2004 Budget is $56,206,000 under O&M General. The Port of Greater Baton Rouge recommends that the Corps be funded $64,566,000 to construct foreshore rock dike, soft dike at deep draft crossings, and to repair Southwest Pass pile dike and tie-in.

3. *Mississippi River—Gulf Outlet (MRGO), LA., Maintenance Dredging*.—The President's Fiscal Year 2004 Budget is $13,485,000 under O&M General. The Port of Greater Baton Rouge recommends that the Corps be funded $34,325,000 for maintenance dredging and bank stabilization.

4. *Inner Harbor Navigation Canal (IHNC) Lock, LA*.—The President's Fiscal Year 2004 Budget is $7,000,000 in Construction General Funds. The Port of Greater Baton Rouge recommends the Corps be funded $20,000,000 to continue construction and mitigation for the IHNC Lock replacement.

5. *Mississippi River Outlets at Venice, LA*.—The President's Fiscal Year 2004 Budget is $1,841,000 under O&M General. The Port of Greater Baton Rouge recommends that the Corps be funded $5,116,000 to perform critical maintenance dredging and to repair jetties.

6. *Bayou Sorrel, Lock, LA*.—The President's Fiscal Year 2004 Budget is $707,000 under General Investigation Studies. The Port of Greater Baton Rouge recommends that the Corps be funded $707,000 to advance pre-engineering design for the replacement of Bayou Sorrel Lock on the Gulf Intracoastal Waterway (GIWW), Morgan City-to-Port Allen alternate route.

7. *Gulf Intracoastal Waterway, LA and TX*.—The President's Fiscal Year 2004 Budget is $19,418,000 under O&M General. The Port of Greater Baton Rouge rec-

ommends that the Corps be funded $29,028,000 to perform critical maintenance at the navigation locks.

8. *MRGO Reevaluation Study, LA*.—The President's Fiscal Year 2004 Budget has no funding for this study. The Port of Greater Baton Rouge recommends that the Corps be funded $813,000 (Construction General). Funds are needed to complete a study to determine the advisability of maintaining the 36-foot depth of the MRGO.

9. *J. Bennett Johnston Waterway, Mississippi River to Shreveport, LA*.—The President's Fiscal Year 2004 Budget is $13,700,000 (Construction General) and $12,013,000 (O&M General). The Port of Greater Baton Rouge recommends that the Corps be funded $29,000,000 (Construction General) and $19.9 million (O&M, General) to complete work already underway.

As stated in previous correspondence, these projects are vital not only to the Port of Greater Baton Rouge but to the entire lower Mississippi River and the Nation. They are projects of critical national significance and have a tremendous impact on shipping for both ocean-going vessels and barge traffic. The great Mississippi River is the premier national waterway, providing accessibility to and from foreign countries for the transportation of goods and services used by countless number of U.S. companies and individual citizens. The channel must be properly designed and maintained for the benefit of all ports and commerce.

We also earnestly request your support for funding of the other projects included in March 2003 testimony prepared and submitted by Mr. Donald T. Bollinger. A summary of Mr. Bollinger's statement is attached. Our waterway infrastructure must be properly maintained if we are to increase trade and have the confidence of our trading partners around the world. Your cooperation and support of these important projects for the Mississippi River are greatly appreciated.

PREPARED STATEMENT OF THE LAKE CHARLES HARBOR AND TERMINAL DISTRICT

The Lake Charles Harbor and Terminal District (Port of Lake Charles, Louisiana) respectfully requests that the U.S. Senate Appropriations Committee and Subcommittee on Energy and Water Development afford favorable consideration to proposed U.S. Army Corps of Engineers projects affecting the Calcasieu River Waterway, Calcasieu Lock and Gulf Intracoastal Waterway. We specifically endorse the appropriateness and necessity for increased funding levels as advocated by testimony offered by Mr. Donald T. Bollinger, Chairman of the Governor of Louisiana's Maritime Industry Task Force.

The Calcasieu River Waterway, including its nexus with the Gulf Intracoastal Waterway and Calcasieu Lock, is deemed "military essential" and further supports two refineries, a major portion of the Nation's liquefied natural gas imports, chemical industries, USDA programs, and is a major economic engine for the region.

Your support of these essential projects toward maintaining our contribution to the Marine Transportation System (MTS) infrastructure will well serve regional and National interests.

PREPARED STATEMENT OF THE ASSOCIATED BRANCH PILOTS, PORT OF NEW ORLEANS

The Associated Branch Pilots is an Association of Pilots that have been guiding oceangoing vessels into the entrances of the Mississippi River system for over 125 years. We are called Bar Pilots because we guide the ships past the constantly shifting and shoaling sand bars in the area.

Southwest Pass of the Mississippi River is the main entrance for deep draft oceangoing vessels entering the Lower Mississippi River System. It is the shallowest stretch of the Lower Mississippi River System and the area that requires the greatest effort by the Corps of Engineers to maintain project depth.

In 2002, the Associated Branch Pilots made 10,850 transits on oceangoing vessels through Southwest Pass. Of these ships, 3,444 were of 50,000 deadweight tons or greater and 686 had a draft in excess of 40 feet.

This number of heavily laden vessels calling on the Lower Mississippi River System is a result of having a channel with a depth of 45 feet.

This first phase has proven to be extremely well designed and well maintained by the fact that the maximum draft recommended by my Association for vessels using Southwest Pass has been 45 feet or greater, except for periods of extremely high water that caused shoaling that overwhelmed the dredging efforts. This is in stark contrast to the late 1970's and early 1980's when we often had to recommend drafts less than the project depth due to shoaling.

To the world shipping community, this means that calling at ports on the Mississippi River system will be more profitable because larger ships can enter and carry greater amounts of cargo.

This is beneficial to the entire United States because it makes the large quantities of petroleum, agricultural, and manufactured products shipped from the Mississippi Valley more desirable due to increased profitability.

I would also like to comment briefly on the East-West navigation channels near Venice, Louisiana. Tiger Pass and Baptiste Collette provide a shorter, more direct route to Breton Sound and the Gulf of Mexico for offshore supply boats and small tugs and barges. These channels not only represent a savings in time and money for these vessels, but reduce the traffic in the main shipping channel, the Mississippi River and its passes, which is one of the most congested waterways in the country.

The dredging and maintaining of South Pass would contribute to the safety of the overall waterway.

The Associated Branch Pilots also pilot vessels in the Mississippi River Gulf Outlet, a man-made tidewater channel 75 miles long, stretching from the Gulf of Mexico to an intersection of the Intercoastal Waterway in New Orleans.

This channel leads to the Main Container Terminals for the Port of New Orleans, the Roll On, Roll Off Terminal, the Port of New Orleans Bulk Handling Plant, and additional General Cargo Docks. For the Port of New Orleans to remain competitive in the ever growing container trade, the continued maintenance of this channel is crucial. In 2002, 719 ships called on the port using the Mississippi River Gulf Outlet.

Much is being said pro and con concerning the Mississippi River Gulf Outlet. There is, admittedly, an erosion problem in the Mississippi River Gulf Outlet, but any curtailment of shipping traffic in the channel without regard to the long term effect upon the Port of New Orleans would be disastrous. I strongly support approval of funding for both the maintenance dredging/jetty repair project and the erosion/rip rap study for the Mississippi River Gulf Outlet.

Funding of the Corps of Engineers' projects in the Lower Mississippi River System has proven to be money well spent. It has increased exports and imports that have benefited the entire United States. I urge your support of the funding requested to enable the Corps to continue to maintain and improve the most efficient and productive waterway system in the country.

PREPARED STATEMENT OF THE CRESCENT RIVER PORT PILOTS' ASSOCIATION

I am President of the largest pilot association in the United States. The Crescent River Port Pilots furnish pilots for ships destined to the Port of Baton Rouge, Port of South Louisiana, Port of New Orleans, Port of St. Bernard, and the Port of Plaquemines.

The Crescent River Port Pilots have piloted and shifted over 14,750 ships during 2002. We pilot deep draft vessels on more than 100 miles on the lower Mississippi River and 35 miles on the Mississippi River Gulf Outlet.

The lower end of our route on the Mississippi River has a shoaling problem starting with the high water season each year. The shoaling requires daily attention by the United States Army Corps of Engineers to maintain project depth.

Heavy-laden vessel calls on the lower Mississippi River system as a direct result of the completion by the Corps of Engineers of the deepening of the channel from 40 feet to 45 feet.

For several years now, we have had extraordinary success in keeping the river dredges to project depth. This success is a direct result of an experienced and vigilant Corps of Engineers that, through experience, is able to timely bid in dredges to avoid extra dredging cost by waiting too long to start maintenance dredging.

Channel stability sends a positive message to the world's shipping community that schedule cargo for deep draft vessels months in advance is reliable. This makes the port call on the Mississippi River very profitable since the ships can lift greater tonnage.

Keeping project depth is beneficial to 27 States that are directly tied to the Mississippi River Port Complex.

Additionally, I would like to comment on the east and west navigation channels near Venice, Louisiana. Baptiste Collette and Tiger Pass provide a shorter and more direct route to Breton Sound and West Delta in the Gulf of Mexico for oil field support vessels.

The Crescent River Port Pilots also pilot ships in the Mississippi River Gulf Outlet. A man-made channel approximately 75 miles long starting in Breton Sound in

the Gulf of Mexico and ending in New Orleans where it intersects with the Intercoastal Waterway.

The Mississippi River Gulf Outlet feeds the main container terminals in the Port of New Orleans. Additional docks, such as Bulk Terminal and general cargo facilities depend on this channel, which handled approximately 847 ship calls last year.

The Mississippi River Gulf Outlet has been a controversial channel since its inception, but being an integral part of the Port of New Orleans, it would be a disaster if it is not kept at project width and depth. The Crescent River Pilots strongly support approval of funding for both the maintenance dredging, and jetty repair projects.

Funding of the United States Army Corps of Engineers projects in the lower Mississippi River system which includes the Mississippi River Gulf Outlet, Tiger Pass, Baptiste Collette, and Southwest Pass has proven to be money well spent.

I urge your support of the funding requested to allow the Corps of Engineers to continue to maintain and improve the most productive waterway system in the world.

Mr. Chairman, thanks for allowing me the opportunity to submit my comments to your subcommittee.

FISCAL YEAR 2004 CONGRESSIONAL APPROPRIATIONS FOR THE LOWER MISSISSIPPI RIVER AND CONNECTING WATERWAYS, J. BENNETT JOHNSTON WATERWAY AND CALCASIEU RIVER WATERWAY—PRESIDENT'S BUDGET REQUEST AND RECOMMENDED FUNDING LEVELS

[In thousands of dollars]

Project	President's Budget Request	Recommended Funding Levels
Mississippi River Ship Channel Gulf to Baton Rouge, LA (Construction General)	196	196
Mississippi River, Baton Rouge to the Gulf, Maintenance Dredging, and Stabilization (O&M General)	56,206	64,566
Mississippi River—Gulf Outlet (MR–GO), LA (O&M General)	13,485	34,325
Inner Harbor Navigation Canal Lock, LA (Construction General)	7,000	20,000
Mississippi River Outlets at Venice, LA (O&M General)	1,841	5,116
Bayou Sorrel Lock, LA (GI Funds)	707	707
Gulf Intracoastal Waterway, LA & TX (O&M General)	19,418	29,028
Calcasieu Lock, LA (GI Funds)	100	800
Calcasieu River and Pass, LA (O&M General)	12,064	20,559
MRGO Reevaluation Study, LA (Construction General)	0	813
J. Bennett Johnston Waterway (Construction General)	13,700	29,000
J. Bennett Johnston Waterway (O&M General)	12,013	19,900
TOTAL	136,730	225,010

PREPARED STATEMENT OF THE CITY OF FLAGSTAFF, ARIZONA

Chairman Domenici, Ranking Member Reid, and distinguished members of the subcommittee, thank you for allowing me to testify on behalf of the City of Flagstaff, Arizona in support of $4.5 million in the Army Corps of Engineers budget for the Rio de Flag flood control project in fiscal year 2004. I believe this project is critically important to the City, to northern Arizona, and, ultimately, to the Nation.

As you may know, Mr. Chairman, with this subcommittee's help last year, Rio de Flag received $1 million to start construction on this important project. We are extremely grateful that the subcommittee boosted this project well above the President's request, and we would appreciate your continued support for this project in fiscal year 2004.

Like many other projects under the Army Corps's jurisdiction, Rio de Flag received no funding for fiscal year 2004, although the Corps has expressed capability of $4.5 million to continue construction on the project. We are hopeful that the subcommittee will fund the Rio de Flag project at $4.5 million when drafting its bill in order to keep the project on an optimal schedule.

Flooding along the Rio de Flag dates back as far as 1888. The Army Corps has identified a Federal interest in solving this long-standing flooding problem through the Rio de Flag, Flagstaff, Arizona—Feasibility Report and Environmental Impact Study (EIS). The recommended plan contained in this feasibility report was developed based on the following opportunities: (1) flood control and flood damage reduction; (2) environmental mitigation and enhancement; (3) water resource manage-

ment; (4) public recreation; and (5) redevelopment opportunities. This plan will result in benefits to not only the local community, but to the region and the Nation.

The feasibility study by the Corps of Engineers has revealed that a 500-year flood could cause serious economic hardship to the City. In fact, a devastating 500-year flood could damage or destroy approximately 1,500 structures valued at more than $395 million. Similarly, a 100-year flood would cause an estimated $95 million in damages. In the event of a catastrophic flood, over half of Flagstaff's population of 57,000 would be directly impacted or affected.

In addition, a wide range of residential, commercial, downtown business and tourism, and industrial properties are at risk. Damages could also occur to numerous historic structures and historic Route 66. The Burlington Northern & Santa Fe Railway (BNSF), one of the primary east-west corridors for rail freight, could be destroyed, as well as U.S. Interstate 40, one of the country's most important east-west interstate links. Additionally, a significant portion of Northern Arizona University (NAU) could incur catastrophic physical damages, disruptions, and closings. Public infrastructure (e.g., streets, bridges, water, and sewer facilities), and franchised utilities (e.g., power and telecommunications) could be affected or destroyed. Transportation disruptions could make large areas of the City inaccessible for days.

Mr. Chairman, the intense wildfires that have ripped through the West over the last several years have only exacerbated the flood potential and hazard in Flagstaff. An intense wildfire near Flagstaff could strip the soil of ground cover and vegetation, which could, in turn, increase runoff and pose an even greater threat of a catastrophic flood.

In short, a large flood could cripple Flagstaff for years and even decades. That is why the City believes it is so important to ensure that this project remains on schedule and that the Corps is able to maximize its capability of $4.5 million in fiscal year 2004 for construction of the Rio de Flag flood control project.

In the City's discussions with the Corps, both the central office in Washington and its Los Angeles District Office also believe that the Rio de Flag project is of the utmost importance and both offices believe the project should be placed high on the subcommittee's priority list. We are hopeful that the subcommittee will heed this advice and also place the project high on its priority list and fully fund the project at $4.5 million for fiscal year 2004.

As you may know, project construction and implementation of Rio de Flag was authorized in the Water Resources Development Act (WRDA) of 2000. The total project is estimated to cost $24,072,000 (October 1999 price levels). The non-Federal share is currently $8,496,000 and the Federal share is currently $15,576,000. Final project costs must be adjusted based on Value Engineering and final design features. It is important to note that the City of Flagstaff has already committed more than $10 million to this project, which is well in excess of its cost share agreement and shows the City's commitment to completing this important project. Through this investment in the project, the City is prepared to enter into the Project Cooperation Agreement (PCA) with the Department of the Army.

The City of Flagstaff, as the non-Federal sponsor, is responsible for all costs related to required Lands, Easements, Rights-of-Way, Relocations, and Disposals (LERRD's). The City has already secured the necessary property rights to begin construction in 2003. Implementation of the City's Downtown and Southside Redevelopment Initiatives ($100,000,000 in private funds) are entirely dependent on the success of the Rio de Flag project. The Rio de Flag project will also provide a critical missing bike/pedestrian connection under Route 66 and the BNSF Railroad to replace the existing hazardous at grade crossings.

Both design and construction are divided into two phases. Phase I is currently scheduled to commence construction in July of 2003. Phase II of the project is scheduled to commence in April of 2004.

Mr. Chairman, the Rio de Flag project is exactly the kind of project that was envisioned when the Corps was created because it will avert catastrophic floods, it will save lives and property, and it will promote economic growth. In short, this project is a win-win for the Federal Government, the City, and the surrounding communities.

Furthermore, the amount of money invested in this project by the Federal Government—approximately $15 million—will be saved exponentially in costs to the Federal Government in the case of a large and catastrophic flood, which could be more than $395 million. It will also promote economic growth and redevelopment along areas that are currently underserved because of the flood potential.

In conclusion, the Rio de Flag project should be considered a high priority for this subcommittee, and I encourage you to support full funding of $4.5 million for this project in the fiscal year 2004 Energy and Water Development Appropriations bill. Thank you in advance for your consideration.

PREPARED STATEMENT OF THE ARKANSAS RIVER BASIN INTERSTATE COMMITTEE

Mr. Chairman and members of this distinguished Committee, my name is Lew Meibergen. I am Chairman of the Board of Johnston Enterprises headquartered in Enid, Oklahoma. It is my honor to serve as Chairman of the Arkansas River Basin Interstate Committee, members of which are appointed by the governors of the great States of Arkansas, Colorado, Kansas, Missouri, and Oklahoma.

In these trying times of war on terrorism, homeland defense and needed economic recovery, our thanks go to each of you, your staff members and the Congress. Your efforts to protect our Nation's infrastructure and stimulate economic growth in a time of budget constraints are both needed and appreciated.

Our Nation's growing dependence on others for energy, and the need to protect and improve our environment, make your efforts especially important. Greater use and development of one of our Nation's most important transportation modes—our navigable inland waterways—will help remedy these problems. At the same time, these fuel-efficient and cost-effective waterways keep us competitive in international markets.

As Chairman of the Interstate Committee, I present this summary testimony as a compilation of the most important projects from each of the member States. Each of the States unanimously supports these projects without reservation. I request that the copies of each State's individual statement be made a part of the record, along with this testimony.

Montgomery Point Lock and Dam

The Interstate Committee continues to identify Montgomery Point Lock and Dam as our top priority. As completion of construction nears, we respectfully request a $15 million Congressional Add for a total budget of $35 million for fiscal year 2004 to ensure that this urgently needed lock and dam is in operation as soon as possible at the lowest possible cost. Scheduled to be operational in 2004, Montgomery Point will protect over $5 billion in public and private investments, some 50,000 jobs, world trade, growing military shipments and future economic development.

Continuing problems caused by the lowering of the Mississippi River continue to plague McClellan-Kerr entrance channel users. During times of low water on the Mississippi River the entrance channel is drained of navigable water depth. As the Mississippi River bottom continues to lower, the McClellan-Kerr moves toward total shutdown. Thus, the entire Arkansas River Navigation System is at risk, and its long-term viability is threatened without Montgomery Point.

Use of the temporary by-pass channel increases navigation hazards and existing dredge disposal areas are virtually full. Mr. Chairman and Members of the Committee, continuing Congressional support is essential at this crucial time in the history of the project.

The Interstate Committee also respectfully recommends the following as important priorities:

Backlog of Major Maintenance—Arkansas

A $2 million Congressional Add to the fiscal year 2004 O&M funding for advance maintenance dredging and a $5 million add for the backlog of channel maintenance, for the McClellan-Kerr Arkansas River Navigation System in Arkansas is vitally important. These additional funds will help repair bank stabilization, channel and other navigational system components that have deteriorated over the past 3 decades.

The O&M funding level has been stagnant for the past 11 years while cost and maintenance needs have continued to increase. Your help in adding $7 million to the project will reduce the critical backlog of needed maintenance repairs, the lack of which cause impediments to commercial navigation.

Equus Beds Aquifer—Kansas

Equus Beds Aquifer Storage and Recovery Project—continuation of a City of Wichita, Groundwater Management District No. 2 and the State of Kansas project to construct storage and recovery facilities for a major groundwater resource supplying water to more the 20 percent of Kansas municipal, industrial and irrigation users. The project will capture and recharge in excess of 100 million gallons per day and will also reduce on-going degradation of the existing groundwater by minimizing migration of saline water. Federal authorization and continued Federal funding is requested in the minimum amount of $1.5 million for fiscal year 2004 for the budget of the Bureau of Reclamation.

Tow Haulage Equipment—Oklahoma

We also request funding of $2.5 million to initiate the installation of tow haulage equipment on the locks located along the Arkansas River Portion of the McClellan-Kerr Arkansas River Navigation System in Oklahoma. Total cost for these three locks is $4.7 million. This project will involve installation of tow haulage equipment on W.D. Mayo Lock and Dam #14, Robert S. Kerr Lock and Dam #15, and Webbers Falls Lock and Dam #16, on the Oklahoma portion of the waterway. The tow haulage equipment is needed to make transportation of barges more efficient and economical by allowing less time for tows to pass through the various locks. Plans are complete and ready to implement.

The testimony we present reveals our firm belief that our inland waterways and the Corps efforts are especially important to our Nation in this time of trial. Transportation infrastructure like the inland waterways, need be operated and maintained for the benefit of the populace. Without adequate annual budgets this is impossible.

We strongly urge the Appropriations Committee to increase the Corps fiscal year 2004 budget so that long deferred system-wide maintenance may be accomplished and delayed construction projects may be completed in a timely and cost-effective manner.

Mr. Chairman, Members of this Committee, we respectfully request that you and members of your staff review and respond in a positive way to the attached individual statements from each of our States which set forth specific requests pertaining to those States.

We sincerely appreciate your consideration and assistance.

ARKANSAS

STATEMENT OF PAUL LATTURE, II, CHAIRMAN FOR ARKANSAS

Mr. Chairman and members of the Committee, thank you for the opportunity to present testimony to this most important committee. I serve as Executive Director for the Little Rock Port Authority and as Arkansas Chairman for the Interstate Committee. Other committee members representing Arkansas, in whose behalf this statement is made, are Messrs. Wally Gieringer of Hot Springs Village, retired Executive Director of the Pine Bluff-Jefferson County Port Authority; Scott McGeorge, President, Pine Bluff Sand and Gravel Company, Pine Bluff; Barry McKuin of Morrilton, President of the Conway County Economic Development Corporation; and N.M. "Buck" Shell, CEO, Five Rivers Distribution in Van Buren and Fort Smith, Arkansas.

In this time of war concerns, war on terrorism, homeland defense and needed economic recovery, our thanks go to each of you, your staff members and the Congress. Your efforts to protect our Nation's infrastructure and stimulate economic growth in this time of trial and tight budgets are greatly appreciated. Our fiscal year 2004 requests are modest.

First, we have grave concern about a provision of the President's fiscal year 2004 budget request which would be very detrimental to the inland waterways, and especially the McClellan-Kerr Arkansas River Navigation System. That budget proposes 25 percent to 50 percent of the cost of Operation & Maintenance of fuel-taxed inland waterways segments be financed by the Inland Waterways Trust Fund (which by law is to be used to pay 50 percent of the cost of lock-and-dam replacements and major rehabilitations).

This budget proposal singles out so-called "low-use" waterway segments moving less than 5 billion ton-miles of commerce annually, a category which would include the McClellan-Kerr, and would require reimbursement of 50 percent of O&M outlays from the trust fund.

The proposal is unfair. The inland waterways provide multiple benefits: flood control, water supply, hydropower, transportation, and recreation. While not the sole user of the waterways, transportation users would be the only beneficiaries paying for the modernization and maintenance of the waterways.

To take a portion of the inland O&M expenditures out of the Inland Waterways Trust Fund would quickly deplete the present surplus and lead to calls for closure of so-called low-use waterways or else for higher fuel taxes, which would adversely impact our Nation's agricultural, energy, and transportation sectors at a time when the economy is struggling to recover.

We urge you to reject this ill-advised proposal and the tax increase it promises as well.

We call to your attention four projects on the McClellan-Kerr Arkansas River Navigation System that are especially important to navigation and the economy of

this multi-State area: completion of Montgomery Point Lock and Dam, needed advance maintenance dredging, backlog of channel maintenance, and completion of the Arkansas River Navigation Study, AR & OK.

Montgomery Point Lock and Dam

Mr. Chairman and Members of the Committee, continuing Congressional support is essential as construction for this major project nears completion. We respectfully request a $15 million Congressional Add for a total budget of $35 million for fiscal year 2004. With this funding Montgomery Point is scheduled to be operational in 2004.

Montgomery Point will ensure reliable navigation to and from the McClellan-Kerr Arkansas River Navigation System during periods of low water on the Mississippi. Thus, it will protect over $5 billion in public and private investments, some 50,000 jobs, world trade and growing military shipments that have resulted from the McClellan-Kerr.

Completion of this $262 million project is near. We are very grateful that you, your associates, and the Congress have recognized the urgency of constructing Montgomery Point.

Advance Maintenance Dredging

A $2,000,000 Congressional Add to the fiscal year 2004 O&M account for the McClellan-Kerr in Arkansas is needed for advance maintenance dredging to assure that the authorized depth of 9 feet is maintained. This funding is vitally important.

We especially appreciate your help in the fiscal year 2003 budget by adding $1,000,000 to the O&M account for this procedure which is used to dredge in known problem areas prior to an event that is predicted to cause siltation above the authorized 9-foot channel depth.

Dredging of the system is currently done after areas have silted in above the authorized channel depth causing light loading and delay problems for the navigation industry. Locations of needed dredging include the lower White River, at Pool 2, and the downstream approaches to Locks 6, 5, 4, and 3.

Backlog of Channel Maintenance

A $5 million Congressional Add to the fiscal year 2004 O&M funding for the McClellan-Kerr will help repair bank stabilization and other components that have deteriorated over the past 3 decades and reduce the critical backlog of maintenance repairs essential to commercial navigation.

Bank stabilization and other components have deteriorated over the past 3 decades and reducing the critical backlog of maintenance repairs is essential. Repairs are necessary to maintain channel alignment, provide full channel width, eliminate shoaling and solve sediment build-up problems that cause light loading and delay problems for the navigation industry.

The O&M funding level has been stagnant for the past 10 years while cost and maintenance needs have continued to increase.

Arkansas River Navigation Study, Arkansas & Oklahoma

A $430,000 Congressional Add is needed for a total budget of $1,500,000 for the important Arkansas River Navigation Study, AR & OK.

While navigation is the primary purpose of the McClellan-Kerr System, navigation needs and flood control are closely related. Chronic high-water flows and channel restrictions result in decreased navigation traffic, as well as continued flooding in the vicinity of Fort Smith, Arkansas and reduced recreational use.

This study addresses the Navigation System Operating Plan and navigable depths to improve navigation conditions on the river as well as the performance of flood control measures and the impacts of high/low flows on environmental quality and recreation uses.

In addition, taking into account the need to realize the total economic potential of the McClellan-Kerr Navigation System, WRDA 2000 directed the Corps to "expedite completion of the Arkansas River Navigation Study, including the feasibility of increasing the authorized channel depth from 9 feet to 12 feet."

Other projects are important to the environment, social and economic well-being of our region and Nation. We recognize the importance of continued construction of needed features to the McClellan-Kerr Arkansas River Navigation System and strongly recommend that you favorably consider the following in your deliberations:

—Support continued funding for the construction, and Operation and Maintenance of the McClellan-Kerr Arkansas River Navigation System. Completion of Montgomery Point will eliminate up 95 percent of the need for dredging in the Lower White and bring about substantial O&M savings for the Navigation System.

—It is important that future budgets include funds for needed construction and the backlog of major channel maintenance that continues to grow. Repairs are necessary to maintain channel alignment, provide full channel width, and eliminate shoaling. This channel maintenance will further contribute to the efficiency and economy of the system.

—Continue construction authority for the McClellan-Kerr Arkansas River Navigation Project until remaining channel stabilization problems identified by the Little Rock District Corps of Engineers have been resolved. It is vitally important that the Corps continue engineering studies to develop a permanent solution to the threat of cutoffs developing in the lower reaches of the navigation system and for the Corps to construct these measures under the existing construction authority.

In conclusion, Mr. Chairman, please help prevent a crisis for the Arkansas River Navigation System and the multi-State region it serves by appropriating $35 million for use in fiscal year 2004 to complete construction for Montgomery Point Lock and Dam.

The entire Arkansas River Navigation System is at risk and remains at risk until Montgomery Point is completed. Some $5 billion in Federal and private investments, thousands of jobs, world trade and growing military shipments for national security are endangered.

We fully endorse the statement presented to you today by the Chairman of the Arkansas River Basin Interstate Committee. We appreciate the opportunity to provide testimony to your most important subcommittee and urge you to favorably consider these requests that are so important to the economic recovery of our region and Nation.

KANSAS

STATEMENT OF GERALD H. HOLMAN, CHAIRMAN FOR KANSAS

Mr. Chairman and members of the committee, I am Gerald H. Holman, Senior Vice President of the Wichita Area Chamber of Commerce, Wichita, Kansas and Chairman of the Kansas Interstate Committee for the Arkansas Basin Development Association (ABDA). I also serve as Chairman of ABDA.

The Kansas ABDA representatives join with our colleagues from the States of Oklahoma, Arkansas and Colorado to form the multi-State Arkansas River Basin Interstate Committee. We fully endorse the summary statement of the Arkansas River Basin Interstate Committee.

In addition to the important projects listed below, continued construction to completion of the Montgomery Point Lock and Dam Project is essential to maintain viable navigation for commerce on the McClellan-Kerr Navigation System. This inland waterway is vital to the economic health of our multi-State area. Likewise, your support is vital to maintain its future viability. Construction is more than 80 percent complete and continued funding is needed. We state our unanimous support for the $35 million needed by the Corps of Engineers for fiscal year 2004 to maintain the most economical and cost efficient construction schedule.

The critical water resources projects in the Kansas portion of the Arkansas River Basin are identified below. The projects are safety, environmental and conservation oriented and all have regional and/or multi-State impact. We are grateful for your leadership and your past commitment to our area.

We ask for your continued support for these important Bureau of Reclamation projects on behalf of the Wichita/South Central Kansas area:

Equus Beds Aquifer Storage and Recovery Project

This is the continuation of a Bureau of Reclamation project jointly endorsed by the City of Wichita, Groundwater Management District No. 2 and the State of Kansas. This model technology has proven the feasibility of recharging a major groundwater aquifer supplying water to nearly 600,000 irrigation, municipal and industrial users. The demonstration project has successfully recharged more than 1 billion gallons of water from the Little Arkansas River. The project is essential to help protect the aquifer from on-going degradation caused by the migration of saline water.

The State of Kansas supports this much-needed project in order to secure the quality of life and economic future for more than 20 percent of the State's population. The project is included within the Kansas Water Plan. All interested parties fully support the project as the needed cornerstone for the area agricultural economy and for the economy of the Wichita metropolitan area.

The demonstration project has confirmed earlier engineering models that the full scale aquifer storage and recovery project is feasible and capable of meeting the increasing water resource needs of the area to the mid 21st century. Presently, the

Equus Beds provide approximately half of the Wichita regional municipal water supply. The Equus Beds are also vital to the surrounding agricultural economy. Environmental protection of the aquifer, which this strategic project provides, has increasing importance to ensure quality water for the future since south central Kansas will rely to an even greater extent on the Equus Beds aquifer for water resources.

The aquifer storage and recovery project is a vital component of Wichita's comprehensive and integrated water supply strategy. The full scale design concept for the aquifer storage and recovery project calls for a multi-year construction program. Phase One is estimated to cost $17.1 million. The total project involving the capture and recharge of more than 100 million gallons of water per day is estimated to cost $110 million over 10 years. This is substantially less costly, both environmentally and economically, when compared with reservoir construction or other alternatives.

We are grateful for your previous cost share funding during the demonstration phase, as a compliment to funds provided by the City of Wichita. As we enter the construction phase, we request continued Congressional support:

—By authorizing as a Federal project, the Aquifer Storage and Recovery Project and directing the Bureau of Reclamation to participate in its final design and construction to completion.

—Through continued cost share funding of the full-scale Aquifer Storage and Recovery Project in the minimum amount of $1,500,000 for fiscal year 2004.

Cheney Reservoir

The reservoir provides approximately half of Wichita's regional water supply. Two continuing environmental problems threaten the water quality and longevity of the reservoir. One is sedimentation from soil erosion and the other is non-point source pollution, particularly the amount of phosphates entering the reservoir resulting in offensive taste and odor problems. A partnership between farmers, ranchers and the City of Wichita has proven beneficial in implementing soil conservation practices and to better manage and therefore reduce and/or eliminate non-point source pollution. Lansat 7 imaging and digital elevation modeling have been employed to identify high priority areas. To date, over 2,000 environmental projects have been completed within the 543,000-acre watershed. Buffer strips are most important for the control of pollution from intermittent streams and also from livestock waste. This partnership must continue indefinitely to protect the reservoir and to extend the life of the Wichita regional water supply. The City of Wichita is providing funding for this critical, nationally acclaimed model nonpoint source pollution project. We request continued Federal funding in the amount of $125,000 for fiscal year 2004.

Many of our agricultural communities have historically experienced major flood disasters, some of which have resulted in multi-State hardships involving portions of the State of Oklahoma. The flood of 1998 emphasized again the need to rapidly move needed projects to completion. Major losses also took place in the Wichita metropolitan area. Projects in addition to local protection are also important.

Our small communities lack the necessary funds and engineering expertise and Federal assistance is needed. This Committee has given its previous support to Kansas Corps of Engineers projects and we request your continued support for the following:

—*Arkansas City, Kansas Flood Protection.*—Unfortunately, this project was not completed prior to the flood of 1998. The flood demonstrated again the critical need to protect the environment, homes and businesses from catastrophic damages from either Walnut River or Arkansas River flooding. When the project is complete, damage in a multi-county area will be eliminated and benefits to the State of Oklahoma just a few miles south will also result. The Secretary of the Army was authorized to construct the project in fiscal year 1997. The project is slated for completion in fiscal year 2005. We request your continued support in the amount of $2.6 million, the level needed by the Corps of Engineers.

—*Walnut River Basin, Kansas Feasibility Study.*—This basin including the Whitewater and Little Walnut Rivers is located in south central Kansas. The feasibility study will identify ecosystem resources, evaluate the system qualities, determine past losses and current needs, and evaluate potential restoration and preservation measures. The non-Federal sponsor is the Kansas Water Office who believes that environmental restoration is a primary need in the basin. Environmental restoration features may also stabilize and protect streambanks from erosion and improve the water quality in the basin. The request for fiscal year 2004 is $160,000, which is the Corps' capability.

—*John Redmond Reservoir Reallocation Study.*—John Redmond Reservoir remains a primary source of water supply for many small communities in Kansas. It is suffering loss of capacity ahead of its design rate due to excessive deposits

within the conservation pool. The flood pool remains above its design capacity. Funding was provided in fiscal year 2001 to initiate a study, which will ascertain the equitable distribution of sediment storage between conservation and flood control storages and also evaluate the environmental impact of the appropriate reallocation. Additional funding of $75,000 is needed in fiscal year 2004 to complete the study.

—*Grand Lake Feasibility Study*.—A need exists to complete evaluation of water resource problems in the Grand-Neosho River basin in Kansas and Oklahoma to evaluate solutions to upstream flooding problems associated with the adequacy of existing real estate easements necessary for flood control operations of Grand Lake, Oklahoma. A study authorized by the Water Resources Development Act of 1996 was completed in September of 1998 and determined that if the project were constructed based on current criteria, additional easements would be required. Section 449 of WRDA 2000 directed the Secretary to evaluate backwater effects specifically due to flood control operations on land around Grand Lake. That study indicated that Federal actions have been a significant cause of the backwater effects and according to WRDA 2000, the feasibility study should be 100 percent federally funded. A Feasibility study is necessary to determine the most cost-effective solution to the real estate inadequacies. Changes in the operations of the project or other upstream changes could have a significant impact on flood control, hydropower, and navigation operations in the Grand (Neosho) River system and on the Arkansas River basin system, as well. We request funding in the amount of $3 million in fiscal year 2004 to fully fund Feasibility studies evaluating solutions to upstream flooding associated with existing easements necessary for flood control operations of Grand Lake.

—*Grand (Neosho) Basin Watershed Reconnaissance Study*.—A need exists for a basin-wide water resource planning effort in the Grand-Neosho River basin, apart from the issues associated with Grand Lake, Oklahoma. The reconnaissance study would focus on the evaluation of institutional measures needed to improve the quality of the aquatic and terrestrial habitat in the basin and to assist communities, landowners, and other interests in southeastern Kansas and northeastern Oklahoma in the development of non-structural measures to reduce flood damages. We request funding in the amount of $100,000 in fiscal year 2004.

—*Continuing Authorities Programs*.—We support funding of needed programs including the Small Flood Control Projects Program (Section 205 of the 1948 Flood Control Act, as amended) as well as the Emergency Streambank Stabilization Program (Section 14 of the 1946 Flood Control Act, as amended). Smaller communities in Kansas (Iola, Liberal, McPherson, Augusta, Parsons, Altoona, Kinsley, Newton, Arkansas City, Coffeyville and Medicine Lodge) have previously requested assistance from the Corps of Engineers under these programs. The City of Wichita is also requesting funding through this program to address flooding problems. We urge you to support these programs to the $50 million programmatic limit for the Small Flood Control Projects Program and $15 million for the Emergency Streambank Stabilization Program.

The Planning Assistance to States Program under section 22 of the Water Resources Development Act of 1974, as amended, provides Federal funding to assist the States in water resource planning. The State of Kansas is grateful for previous funding under this program which has assisted small Kansas communities in cost sharing needed resource planning as called for and approved in the Kansas State Water Plan. We request continued funding of this program at the level which will allow the State of Kansas to receive the $500,000 limit.

Also, Ecosystem Restoration Programs are relatively new programs which offer the Corps of Engineers a unique opportunity to work to restore valuable habitat, wetlands, and other important environmental features which previously could not be considered. Preliminary Restoration Plan studies are underway at Newton, Garden City and Neosho County. We urge you to support section 1135 of the Water Resources Development Act of 1986 and Section 206 of the Water Resources Development Act of 1996 at their $25 million programmatic limits.

Finally, we are very grateful that both the Corps of Engineers and Bureau of Reclamation have the expertise needed for the development and protection of water resources infrastructure. It is essential to have the integrity and continuity these agencies provide on major public projects. Your continued support of these vital agencies, including funding, will be appreciated. Our infrastructure must be maintained and where needed, enhanced for the future.

Mr. Chairman and Members of these Committees, we thank you for the dedicated manner in which you have dealt with the Water Resources Programs and for allowing us to present our funding requests.

Thank you very much.

OKLAHOMA

STATEMENT OF JAMES M. HEWGLEY, JR., CHAIRMAN FOR OKLAHOMA

Mr. Chairman and members of the committee, I am James M. Hewgley, Jr., Oklahoma Chairman of the Arkansas River Basin Interstate Committee, from Tulsa, Oklahoma.

It is my privilege to present this statement on behalf of the Oklahoma Members of our committee in support of adequate funding for water resource development projects in our area of the Arkansas River Basin. Other members of the Committee are: Mr. Ted Coombes, Tulsa; Mr. A. Earnest Gilder, Muskogee; Mr. Terry McDonald, Tulsa; and Mr. Lew Meibergen, Enid.

Together with representatives of the other Arkansas River Basin States, we fully endorse the statement presented to you by the Chairman of the Arkansas River Basin Interstate Committee. We appreciate the opportunity to present our views of the special needs of our States concerning several studies and projects.

Montgomery Point Lock and Dam—Montgomery Point, Arkansas

As we have testified for several years, we are once again requesting adequate appropriations to continue construction of this most important and much needed project. This project must be kept on the current schedule to insure the shippers on the system will not be impacted by a low water event after that date. Lower funding will only stretch out the completion of the project and add to the final cost in real dollars and subject the shippers to possible losses due to low water and restrictions on, or halting, navigation.

We respectfully request the Congress to appropriate $35 million in the fiscal year 2004 budget cycle to continue construction on the current project schedule. With the needed funding for fiscal year 2004 the project can be finished by July of 2004. This request coincides with the President's recommendation that "funding go toward ongoing projects, particularly those nearing completion." This will help insure the project is completed and in operation in a timely manner at the lowest possible cost.

Mr. Chairman, it is my pleasure to point out to this distinguished Committee that this navigation system has brought low cost water transportation to Oklahoma, Arkansas and the surrounding States. There has been over $5.5 billion invested in the construction and development of the McClellan-Kerr Arkansas River Navigation system by the Federal Government ($1.3 billion) and the public and private ($4.2 billion+) sector, resulting in the creation of over 50,000 jobs in this partnered project.

Maintenance of the Navigation System

We request additional funding in the amount of $2 million, over and above normal funding, for deferred channel maintenance. These funds would be used for such things as repair of bank stabilization work, needed advance maintenance dredging, and other repairs needed on the system's components that have deteriorated over the past 3 decades.

In addition to the systemwide needed maintenance items mentioned above, the budget for the Corps of Engineers for the past several years has been insufficient to allow proper maintenance of the McClellan-Kerr Arkansas River Navigation System—Oklahoma portion. As a result, the backlog of maintenance items has continued to increase. If these important maintenance issues are not addressed soon, the reliability of the system will be jeopardized. The portion of the system in Oklahoma alone is responsible for returning $2.6 billion in annual benefits to the regional economy. We therefore request that $2.8 million be added to the budget to accomplish the critical infrastructure maintenance items following: Repair weir at L&D 14; repair tainter gates at L&D 17; upgrade gate motor controls at L&D 14; dewater, inspect, repair Locks 14, 15, & 16; repair tainter gates at L&D 18; L&D 14–18—remote control tainter gates; R.S. Kerr—repair miter gates; R.S. Kerr—repair Lock 15 support cell; replace pole lighting—Locks 14—18; replace tainter gate limit switches—R.S. Kerr. These are the very worst of the needed repairs of the many awaiting proper preventive maintenance and repair.

Tow Haulage Equipment—Oklahoma

We also request funding of $2.5 million to initiate the installation of tow haulage equipment on the locks located along the Arkansas River Portion of the McClellan-Kerr Arkansas River Navigation System. Total cost for these three locks is $4.7 million. This project will involve installation of tow haulage equipment on W.D. Mayo Lock and Dam #14, Robert S. Kerr Lock and Dam #15, and Webbers Falls Lock and Dam #16, on the Oklahoma portion of the waterway. The tow haulage equipment

is needed to make transportation of barges more efficient and economical by allowing less time for tows to pass through the various locks.

Arkansas River System Operations Feasibility Study—Arkansas and Oklahoma

We are especially pleased that the budget includes funds to continue the Arkansas River Navigation Study, a feasibility study which is examining opportunities to optimize the Arkansas River system. The system of multipurpose lakes in Arkansas and Oklahoma on the Arkansas River and its tributaries supports the McClellan-Kerr Arkansas River Navigation System, which was opened for navigation to the Port of Catoosa near Tulsa, Oklahoma, in 1970. The navigation system consists of 445 miles of waterway that passes through the States of Oklahoma and Arkansas. This study would optimize the reservoirs in Oklahoma and Arkansas that provide flows into the river, with a view toward improving the number of days per year that the navigation system would accommodate tows. This study could have significant impact on the economic development opportunities in the States of Oklahoma, Arkansas and the surrounding States. Due to the critical need for this study, we request funding of $1.2 million, which is greater than shown in the budget, to continue feasibility studies in fiscal year 2004.

Miami, Oklahoma and Vicinity Feasibility Study

We request funding of $231,000 to complete the reconnaissance phase for the vicinity in Ottawa County including and surrounding Miami, Oklahoma in the Grand (Neosho) Basin. Water resource planning-related concerns include chronic flooding, ecosystem impairment, poor water quality, subsidence, chat piles, mine shafts, health effects, and Native American issues. The State of Oklahoma's desire is to address the watershed issues in a holistic fashion and restore the watershed to acceptable levels. Study alternatives could include structural and non-structural flood damage measures, creation of riverine corridors for habitat and flood storage, development of wetlands to improve aquatic habitat and other measures to enhance the quality and availability of habitat and reduce flood damages.

We are pleased that the President's budget includes funds to advance work for Flood Control and other water resource needs in Oklahoma. Of special interest to our committee is funding for the Skiatook and Tenkiller Ferry Lakes Dam Safety Assurance Projects in Oklahoma and that construction funding has been provided for those important projects. We would like to see Tenkiller funded at the $6.0 million level, which is the Corps' capability for fiscal year 2004. We request that funding in the amount of $1.2 million be provided to initiate the Canton Lake Dam safety project. We are also pleased that funding is included to continue reconnaissance studies for the Oologah Watershed, the Wister Watershed and the Miami, OK and Vicinity region. We are also pleased to see continued funding for the SE Oklahoma Water Resource Study, and the Miami, OK and Vicinity region.

Oologah Lake Watershed Feasibility Study

We request funding of $259,000 for ongoing feasibility studies at Oologah Lake and in the upstream watershed. The lake is an important water supply source for the city of Tulsa and protection of the lake and maintaining and enhancing the quality of the water is important for the economic development of the city. Recent concerns have been expressed by the City of Tulsa and others regarding potential water quality issues that impact water users, as well as important aquatic and terrestrial habitat. Concerns are related to sediment loading and turbidity, oilfield-related contaminants and nutrient loading.

Illinois River Watershed Reconnaissance Study

We request funding in the amount of $100,000 to conduct a reconnaissance study of the water resource problems of the Illinois River Basin. The Illinois River watershed is experiencing continued water resource development needs and is the focus of ongoing Corps and other agency investigations. However, additional flows are sought downstream of the Lake Tenkiller Dam and there are increasing watershed influences upstream of Lake Tenkiller which impact on the quality of water available for fish and wildlife, municipal and industrial water supply users, and recreation users of the Lake Tenkiller and Illinois River waters.

Grand (Neosho) Basin Reconnaissance Study

We request funding in the amount of $100,000 to conduct a reconnaissance study of the water resource problems in the Grand (Neosho) Basin in Oklahoma and Kansas. There is a need for a basin-wide water resource planning effort in the Grand-Neosho River basin, apart from the issues associated with Grand Lake, Oklahoma. The reconnaissance study would focus on the evaluation of institutional measures which could assist communities, landowners, and other interests in northeastern

Oklahoma and southeastern Kansas in the development of non-structural measures to reduce flood damages in the basin.

Grand Lake Feasibility Study

A need exists to evaluate water resource problems in the Grand-Neosho River basin in Kansas and Oklahoma to evaluate solutions to upstream flooding problems associated with the adequacy of existing real estate easements necessary for flood control operations of Grand Lake, Oklahoma. A study authorized by the Water Resources Development Act of 1996 was completed in September of 1998 and determined that if the project were constructed based on current criteria, additional easements would be required. Section 449 of WRDA 2000 directed the Secretary to evaluate backwater effects specifically due to flood control operations on land around Grand Lake. That study indicated that Federal actions have been a significant cause of the backwater effects and according to WRDA 2000, the feasibility study should be 100 percent federally funded. A Feasibility study is necessary to determine the most cost-effective solution to the real estate inadequacies. Changes in the operations of the project or other upstream changes could have a significant impact on flood control, hydropower and navigation operations in the Grand (Neosho) River system and on the Arkansas River Basin system, as well. We urge you to provide $3 million to fully fund Feasibility studies for this important project in fiscal year 2003 and to direct the Corps of Engineers to execute the study at full Federal expense.

Wister Lake Watershed Feasibility Study

We request funding of $200,000 to continue feasibility studies of the Wister Lake watershed. Wister Lake is located on the Poteau River near Wister, Oklahoma. The lake was completed in 1949 for flood control, water supply, water conservation and sediment control. Wister Lake is the primary water resource development project in the Poteau River Basin. It provides substantial flood control, municipal and industrial water supply, and recreation benefits for residents of LeFlore County, Oklahoma, and the southeastern Oklahoma region. Ecosystem degradation in the lake and in the basin, in general, is occurring primarily as a result of non-point source pollution from poultry operations, forestry practices, abandoned strip coal mines, and natural gas exploration operations. The study will identify potential measures to restore the ecosystem in the basin and will evaluate other water resource problems and potential solutions.

We also support funding for the Continuing Authorities Program, including the Small Flood Control Projects Program, (Section 205 of the 1948 Flood Control Act, as amended) and the Emergency Streambank Stabilization Program, (Section 14 of the 1946 Flood Control Act, as amended). We want to express our appreciation for your continued support of those programs.

Section 205

Although the Small Flood Control Projects Program addresses flood problems which generally impact smaller communities and rural areas and would appear to benefit only those communities, the impact of those projects on economic development crosses county, regional, and sometimes State boundaries. The communities served by the program frequently do not have the funds or engineering expertise necessary to provide adequate flood damage reduction measures for their citizens. Continued flooding can have a devastating impact on community development and regional economic stability. The program is extremely beneficial and has been recognized nationwide as a vital part of community development, so much so in fact, that there is currently a backlog of requests from communities who have requested assistance under this program. There is limited funding available for these projects and we urge this program be fully funded to the programmatic limit of $50 million.

Section 14

Likewise, the Emergency Streambank Stabilization Program provides quick response engineering design and construction to protect important local utilities, roads and other public facilities in smaller urban and rural settings from damage due to streambank erosion. The protection afforded by this program helps ensure that important roads, bridges, utilities and other public structures remain safe and useful. By providing small, affordable and relatively quickly constructed projects, these two programs enhance the lives of many by providing safe and stable living environments. There is also a backlog of requests under this program. Funding is also limited for these projects and we urge this program be fully funded to the programmatic limit of $15 million.

We also request your continued support of the Flood Plain Management Services Program (Section 206 of the 1960 Flood Control Act) which authorizes the Corps of

Engineers to use its technical expertise to provide guidance in flood plain management matters to all private, local, State and Federal entities. The objective of the program is to support comprehensive flood plain management planning. The program is one of the most beneficial programs available for reducing flood losses and provides assistance to officials from cities, counties, States and Indian Tribes to ensure that new facilities are not built in areas prone to floods. Assistance includes flood warning, flood proofing, and other flood damage reduction measures, and critical flood plain information is provided on a cost-reimbursable basis to home owners, mortgage companies, Realtors and others for use in flood plain awareness and flood insurance requirements.

We also request your support of the Planning Assistance to States Program (Section 22 of the 1974 Water Resources Development Act) which authorizes the Corps of Engineers to use its technical expertise in water and related land resource management to help States and Indian Tribes solve their water resource problems. The program is used by many States to support their State Water Plans. As natural resources diminish, the need to manage those resources becomes more urgent. We urge your continued support of this program as it supports States and Native American Tribes in developing resource management plans which will benefit citizens for years to come. The program is very valuable and effective, matching Federal and non-Federal funds to provide cost-effective engineering expertise and support to assist communities, States and tribes in the development of plans for the management, optimization and preservation of basin, watershed and ecosystem resources. The Water Resources Development Act of 1996 increased the annual program limit from $6 million to $10 million and we urge this program be fully funded to the programmatic limit of $10 million.

On a related matter, we would share with you our concern that the administration has not requested, nor has the Congress appropriated, sufficient funds to meet the increasing infrastructure needs of the inland waterways of our Nation. The administration's requests will not keep projects moving at the optimum level to complete them on a cost-effective basis. Moving the completion dates out is an unacceptable exercise since 50 percent of the funds come from the Waterways Trust Fund. This will not only waste Federal funds but, those from the trust fund as well.

As the Waterways Trust Fund is now defined, it is to be used for the Waterway Industries' cost share of new construction and major rehab of the inland waterway navigation system, so stated by law in the 1986 WRDA. The Administration's request to redirect some of those funds to operation and maintenance is in conflict with the agreement between the Congress and the Industry. We urge the Congress to protect and use these funds for their intended purpose and to honor the agreement between the Federal Government and the Waterway Industry.

We strongly urge the Appropriations Committee to raise the Corps of Engineers' budget to $5 billion to help get delayed construction projects back on schedule and to reduce the deferred maintenance backlog which is out of control. This will help the Corps of Engineers meet the obligations of the Federal Government to people of this great country.

Concerning another related matter, we have deep concerns about the attempt to re-authorize the Endangered Species Act without significant beneficial reforms. If a bill is passed through without reforms, it will be devastating to industry and the country as a whole. We strongly urge you to take a hard look at any bill concerning this re-authorization and insure that it contains reasonable and meaningful reforms. We urge the re-authorization of the act with reforms at the earliest possible time.

Mr. Chairman, we appreciate this opportunity to present our view on these subjects.

PREPARED STATEMENT OF THE SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY AND THE CITY OF MESA, ARIZONA

Chairman Domenici, Ranking Member Reid, and distinguished members of the subcommittee, thank you for allowing us to testify on behalf of the Salt River Pima-Maricopa Indian Community (SRPMIC) and the City of Mesa in support of a fiscal year 2004 appropriation of $870,000 for the Va Shly'ay Akimel, Arizona, project of the U.S. Army Corps of Engineers. This project, intended to restore a degraded stretch of the Salt River in central Arizona, is critically important to the tribe, the City, and the region.

Mr. Chairman, because of this subcommittee's efforts, $800,000 was appropriated for the feasibility phase of the Va Shly'ay Akimel project in fiscal year 2003. We are extremely grateful for the subcommittee's ongoing support of the project. We re-

spectfully request your continued support for this project in fiscal year 2004 with an appropriation of $870,000, the amount required to complete the feasibility study.

Like many projects of the U.S. Army Corps of Engineers, Va Shly'ay is drastically underfunded in the President's budget. Although the budget does include $400,000 for the project in fiscal year 2004, the Corps has a capability of $870,000 to complete the feasibility study in the coming year. We hope that the subcommittee will provide this level of funding in order to contain costs and maintain an optimal project schedule.

SRPMC and the City of Mesa fully recognize the importance of restoring the Salt River's environmental integrity. As a consequence, the tribe and City—the non-Federal sponsors of the project—remain committed to discharging the requisite cost-sharing obligations associated with the project. We would also note that, as far as we know, this project is the only one in the Nation featuring a joint cost-share agreement between an Indian tribe and a local community. This makes it a unique project of the Corps of Engineers. We have every reason to believe that this example of municipal-tribal cooperation could serve as a model for future joint projects of tribal communities and local governments.

In conclusion, it is critically important that this project remain on an optimal schedule. The Corps has expressed a maximum capability of $870,000 to complete the feasibility study in fiscal year 2004. On behalf of the SRPMIC and the City of Mesa, we ask that you fully fund the Va Shly'ay Akimel project at $870,000 in fiscal year 2004.

PREPARED STATEMENT OF THE NATIONAL MINING ASSOCIATION

The National Mining Association (NMA) membership includes companies engaged in the production of coal, metallic ores, nonmetallic minerals, and in manufacturing mining machinery and equipment. The transportation of coal and minerals to domestic and international markets utilizes our Nation's inland waterways system, Great Lakes, coastal shipping lanes and harbors and shipping channels at deep draft inland and coastal ports.

NMA believes that a strong transportation network comprised of our highways, rails, inland waterways and ports is critical to the economic growth, security and competitiveness of the United States. According to the U.S. Army Corps of Engineers Waterborne Commerce Statistics of 2001, approximately 2.4 billion tons of commerce moved in the U.S. marine system (inland waterways, Great Lakes, coastal and deep-draft ports). Of that total, approximately 1.04 billion tons were domestic movements with coal comprising approximately 223 million tons or 21 percent of all commodities. Of the 223 million tons of coal, 170 million tons were carried on the inland and intracoastal waterways, 18.5 million tons on the Great Lakes and the remainder moved in coastwise and intraport shipments. On the Ohio River system and its tributaries, coal movements totaled 157 million tons or 56 percent of all the traffic. Coal moved to power plants along the system and to power plants in 8 States outside of the basin. In addition, 55 million tons of coal was exported in 2001.

Iron ore, phosphate rock, and other minerals also utilize the inland waterways system. In 2001, almost 66 million tons of iron ore moved on the system. Of the total, 48.4 million tons moved domestically with 44.8 million tons moved on the Great Lakes and 3.5 million tons on the inland system. More than 1.7 million tons of phosphate rock moved on the waterways system through coastwise movements.

NMA strongly opposes the administration's proposals in the fiscal year 2004 budget to expand the responsibilities of the Inland Waterways Trust Fund (IWTF) and the Harbor Maintenance Trust Fund (HMTF). These trust funds were established after a great deal of public debate and study as part of the Water Resources Development Act of 1986. The unique partnership for sharing construction, rehabilitation and maintenance costs between the public and private sectors has built a marine transportation system that is world class.

In addition, NMA is very concerned that the proposed Fiscal Year 2004 Budget for the Corps of Engineers does not provide sufficient funding to keep critical navigation projects on schedule, allow for the start of new projects, and address the maintenance backlog for existing navigation projects. As the system is asked to do more, it is critical that all parties are committed and a critical demonstration of the commitment is through appropriations levels that address the current challenges facing the system and plan for future demands.

ADMINISTRATION'S PROPOSALS TO EXPAND EXPENDITURES FROM THE IWTF AND THE HMTF

Users of the inland waterways system pay a fuel tax of 20 cents per gallon, which has historically generated approximately $100 million annually for the IWTF. Also, an additional fuel tax of 4.3 cents is paid to the General Treasury for deficit reduction. These monies in the IWTF are used to pay 50 percent of the annual costs associated with new construction and major rehabilitation of locks and dams on the fuel-taxed inland waterways. The remaining 50 percent is matched by money from the Federal Government. Instead of being used immediately as originally intended for inland waterways projects, the IWTF has a surplus of approximately $394 million. In reality, there is no surplus because these funds, as well as the revenue generated by the 20-cents-per gallon fuel tax for the next 8 years, are committed to complete six of the priority and congressionally-approved projects currently under construction.

Without existing authorization, the administration's fiscal year 2004 budget proposes to use the surplus and future trust fund revenues to finance 25–50 percent of the costs associated with operations and maintenance in addition to current expenditures for new construction and maintenance. The proposal is for IWTF to provide $146 million for operations and maintenance in addition to the $110 million for IWTF projects.

It is estimated that under this proposal the IWTF will be out of funds in 3 years. The real effect of the administration's proposal is an increase in user taxes for the transporters. It is estimated that the diesel tax would have to be increased from its current 20 cents per gallon to 53.5 cents per gallon—a stunning 168 percent increase. These increases would be passed along as additional transportation costs and reflected in the cost of coal and other minerals shipped on the inland waterways systems. In 2001, more than 293 million tons of coal moved domestically or to international markets. Consumers would see cost increases for electricity generated by coal and for products such as steel that use coal as a raw material. The already dismal coal exports would be further disadvantaged in the international marketplace.

Barge companies and private sector companies, such as coal and mineral producers, are not the only beneficiaries of a well-maintained inland waterways system. However, they would be the only beneficiaries paying for operations and maintenance of the system. The system also provides benefits related to national security, water supply, flood control, hydropower, and recreation. The Federal Government, up until this time, has recognized the multiple benefits and has assumed responsibility for operations and maintenance. During consideration of the Water Resources Act of 1986, Congress debated this issue and the current system was the outcome. And in 1996, a proposal to increase the fuel tax by $1.00 per gallon was rejected by Congress.

The administration's proposal related to the HMTF would require that the Federal share of deep-draft navigation channel construction costs be allocated from the trust fund rather than the Federal Government as currently mandated. Again, authorization does not exist for this proposal. Investment in the Nation's ports and harbors is a local and Federal partnership. Local authorities invest in marine terminal capacity and efficiency, dredging of berths and approach channels and cost sharing new construction dredging projects to widen or deepen navigation channels. Ports are expected to spend approximately $1.9 billion over the next 5 years on capital expenditures. Currently, the HMTF covers 100 percent of all operations and maintenance costs associated with maintaining our Nation's harbors. The funds for the HMTF come from a tax on the value of cargo imported into the United States or moved coastwise.

The Federal Government invests only in navigation projects that return national benefits. The administration's proposal relieves the Federal taxpayer, who is the ultimate beneficiary of these projects from any responsibility to pay for the modernization of our Nation's deep-draft navigation system. In addition, the proposal completely abdicates the Federal responsibility for national security. The U.S. Coast Guard, Navy and other units of the Armed Forces depend on well-maintained and deepened harbors as bases of operation. At this time, more than any other in recent history, the national security implications are very clear. Furthermore, with the administration's proposal for HMTF covering 100 percent of costs related to operations and maintenance as well as the Federal share for new construction projects, any Federal responsibility or role related to our Nation's ports and harbors is abdicated.

GENERAL RECOMMENDATIONS FOR FISCAL YEAR 2004 APPROPRIATIONS FOR THE ARMY CORPS OF ENGINEERS CIVIL WORKS PROGRAM

NMA reviewed the proposed fiscal year 2004 Appropriations for the Army Corps of Engineers and the Civil Works Program and has the following general recommendations.

—A minimum of $5 billion should be appropriated in fiscal year 2004 for the Civil Works Program. This level balances the need to address the significant project backlog and the capability of the Corps with our Nation's need at this time for homeland security and national defense.

—A level of $150 million should be withdrawn from the Inland Waterways Trust Fund to be matched by an equal appropriation from the general fund for the construction and major rehabilitation of locks and dams on the inland waterway system. By maintaining this level of appropriations for the next 10 years, the surplus in the Trust Fund can be reduced to more appropriate levels. Timely completion of these required navigation projects would accelerate the national economic benefits from the projects, minimize cost increases and ensure a viable and reliable national waterways system.

—The fiscal year 2004 appropriations for the Corps' General Investigations account should be increased to $154.4 million, the same level as appropriated in fiscal year 2002. The proposed fiscal year 2004 level of $100 million will not permit the Corps to undertake any new studies. These studies are critical to ascertaining and developing future projects that will be needed to maintain and improve our system. It takes time to complete these projects and while there are issues related to new construction starts, projects should be in the pipeline and ready should funds be available.

—The fiscal year 2004 proposed funding in the amount of $1.939 billion for the Corps' Operations and Maintenance functions should be increased. At the end of fiscal year 2003, it was estimated that critical maintenance backlog was $884 million. Of the total, $534 million is navigation's share with $364 for inland waterways. Currently, 53 percent of the locks and dams operated by the U.S. Army Corps of Engineers are 50 years or more. With the constraints related to funds for new construction and rehabilitation, it is imperative that existing locks and dams are maintained. Delaying necessary maintenance impacts the ability to move commerce efficiently, exasperates further deterioration and accelerates the need for major rehabilitation and possibly at higher costs than necessary. Further comments and specific project recommendations are outlined below.

BUDGET PROPOSALS SUPPORTED BY NMA

NMA strongly supports the administration's fiscal year 2003 budget proposal to increase funding for two priority projects: the Olmsted Locks and Dam on the Ohio River (between Illinois and Kentucky) and the Marmet Locks and Dam on the Kanawha River in West Virginia. The proposed fiscal year 2004 funding level for Olmsted of $73 million, which is the efficient funding level for the project, illustrates the approach that should be taken for other priority projects as well. This level will reduce any further construction delays resulting in delayed economic benefits for the country. While Marmet is not at the efficient funding level, the appropriations level is significantly more than fiscal year 2003 and is recognition of the importance of the project.

Following the testimony is a list of projects that NMA supports for additional appropriations to permit efficient funding schedules. By appropriating funds at the level to permit efficient funding schedules, the backlogs will be reduced and the Nation will be able to realize the economic benefits that were projected when these projects were authorized. The list also contains recommendations for additional funds for preconstruction, engineering and design and surveys.

PORTS

Our Nation's ports and harbors provide the critical link in our marine transportation system that provide U.S. shippers, both importers and exporters, with options that maximize their ability to compete and remain competitive in a global marketplace. U.S. deep-draft commercial ports handle over 95 percent of the volume and 75 percent of the value of cargo moving in and out of the United States. For the U.S. mining industry, coal, iron ore, phosphate, and other minerals move to export out of U.S. ports. In addition, minerals critical to the United States are imported through our ports. Unfortunately, many of these minerals could be produced in the United States but current policies are making it increasingly difficult for U.S. mineral companies to remain in the country. By providing the United States with much

needed minerals from domestic sources, our reliance on imports would be reduced and equally important new jobs would be created contributing to the country's economic strength.

The proposed fiscal year 2004 budget proposes only $212 million, which represents less than half of the $430 million necessary to fund ongoing and new projects for deep-draft harbors. As with inland waterways projects, failure to maintain optimal schedules increase costs and delay project benefits.

CONCLUSION

NMA strongly opposes the administration's proposals to expand the IWTF to cover 25–50 percent of operation and maintenance costs and the expansion of the HMTF to cover deep-draft construction costs. In addition, we are concerned that the administration continues to propose funding levels for our inland waterways system that will continue to have very negative impacts on the system. As a country we cannot afford to neglect the continued improvement and maintenance of our Federal navigation system. Failure to continue our investment and commitment to all aspects of our marine system will have serious long-term consequences for our Nation's economic health, safety and security.

NMA'S FISCAL YEAR 2004 APPROPRIATIONS REQUEST FOR INLAND WATERWAYS PROJECTS

FISCAL YEAR 2004 APPROPRIATIONS LEVELS SUPPORTED BY NMA

[In millions]

	Fiscal Year 2004 Request	Efficient Funding Level
Olmsted Lock and Dam	$73	$73
Greenup Lock and Dam	2.895	3
Ohio River Mainstem Study	1.35	1.5

FISCAL YEAR 2004 PROJECT APPROPRIATION LEVELS NEEDING ADDITIONAL FUNDS

Construction and Rehabilitation

McAlpine Locks Replacement Project—Fiscal Year 2004 Request: $26.1 million, Efficient Funding Level: $70 million

Located in downtown Louisville, Kentucky and near Jefferson, Indiana, the project provides for a new 1,200′ lock that will replace an inactive 56′×360′ lock and a 110′×600′ auxiliary lock. According to the U.S. Army Corps of Engineers Waterborne Commerce Statistics for 2001, more than 55 million tons of commodities valued at nearly $11.7 billion were shipped through the locks. Coal was the leading commodity, comprising 37 percent of all shipments. Of the 20 million tons of coal moving through McAlpine in 2001, 13 million tons went to 30 power plants in 8 States. Kentucky received the most tonnage with 12.6 million tons valued at $1.6 billion and coal was the top commodity received in Kentucky. The total project cost is $278 million. The project is 6 years behind schedule with a current loss of $245 million in benefits.

Locks and Dams 2, 3, and 4—Fiscal Year 2004 Request: $35 million, Efficient Funding Level: $61 million

Located on the Monongahela River near Pittsburgh, Pennsylvania this project replaces some of the oldest structures (some parts are more than 100 years old) operating in the inland system. The extreme structural deterioration of Dam 2 and Locks 3 and Dam 3 are of major concern. According to the U.S. Army Corps of Engineers Waterborne Commerce Statistics for 2001, almost 22.2 million tons of commodities valued at $1.7 billion were shipped through any or all of the locks. Coal comprised 86 percent of the tonnage moving through the locks. Of the 19.2 million tons of coal moving through the locks, more than 7.2 million tons went to 23 power plants in 7 States. The value of the coal was almost $1.6 billion. Pennsylvania received and shipped the most tonnage through the locks with coal the No. 1 commodity. Construction began on the $750 million project in 1994 and is scheduled for completion in 2010. The project is 6 years behind schedule with a current loss of $134.6 million in benefits.

Marmet Locks and Dams—Fiscal Year 2003 Request: $52.154 million, Efficient Funding Level: $69.2 million

Located on the Kanawha River near Belle, West Virginia this project includes the construction of an additional 110′×800′ lock landward of the existing smaller dams, which would be converted to auxiliary status. According to the U.S. Army Corps of Engineers Waterborne Commerce Statistic for 2001, 17.1 million tons of commodities valued at $802 million were shipped through the locks. Coal shipments comprised 95 percent of all shipments with 16.1 million tons moving through Marmet. West Virginia shipped the most tonnage with 16.4 million tons valued at $665 million. Ohio received the most tonnage with 6.4 million tons valued at $245 million. For both States, coal was the No. 1 commodity shipped. The project cost is $313 million. Originally scheduled to be completed in 2007, it will not be completed until 2010 with a current loss of benefits of almost $118 million.

Kentucky Lock—Fiscal Year 2004 Request: $24.8 million, Efficient Funding Level: $53 million

Located on the Tennessee River near Grand Rivers, Tennessee this project includes the addition of a 110′×1,200′ lock and the relocation of an existing railroad, highway and powerhouse access road. According to the U.S. Army Corps of Engineers Waterborne Commerce Statistics for 2001, almost 35 million tons of commodities valued at $6.2 billion moved through Kentucky Lock. Coal was No. 1 commodity with 12.6 million tons or 36 percent of all shipments. The value was almost $500 million. Of the total coal shipments nearly 10 million tons moved to 9 power plants. Construction began on this project in 1999 and the total cost of $533 million. The project is now scheduled to be completed in 2010 (originally 2008) with a current loss of $75 million in benefits.

Preconstruction Engineering and Design

J.T. Myers Locks and Dam—Fiscal Year 2004 Request: $0, Efficient Funding Level: $2 million

The John T. Myers Locks and Dam located on the Ohio River about 3½ miles downstream from Uniontown, KY. The John T. Myers and Greenup Locks Improvements Interim Feasibility Report, a product Ohio River Mainstem Study, recommends a 600′ extension of the auxiliary chambers at both locations along the Ohio River. This project was authorized in the Water Resources Development Act of 2000. The expected cost is $225 million with a benefit/cost ratio of 1.8 to 1. According to the U.S. Army Corps of Engineers Waterbourne Commerce Statistics for 2001, over 75 million tons of commodities were shipped through the project with a total value of $13.8 billion. Coal comprised almost 33 million tons or 44 percent of all shipments. Most of the coal went to 31 power plants in 8 States. Louisiana shipped the most commodities with iron and steel No. 1 at almost 21 million tons. Indiana received the most commodities with coal being No. 1 at 16.1 million tons.

Surveys

Emsworth, Dashields & Montgomery Lock and Dams—Fiscal Year 2004 Request: $0, Efficient Funding Level: $1.5 million

As the uppermost navigation projects on the Ohio River (located downstream of Pittsburgh, PA), these three projects have main lock chambers measuring 600′×100′ and auxiliary locks of 360′×56′. The main chambers are one-half the size of the standard chamber (1,200′×110′) on the Ohio River and the auxiliary locks are one-fourth the standard auxiliary locks (600′×100′). Major remedial work was done in the 1980s at a total cost of more than $100 million. The work was designed to extend the life of the projects to the 2005–2010 timeframe. In order to look at all of the problems and needs associated with the three projects, Congress authorized and provided funding for a detailed feasibility study.

PREPARED STATEMENT OF THE MIDWEST AREA RIVER COALITION 2000

Mr. Chairman and Members of the Committee, I am Christopher Brescia, President of the Midwest Area River Coalition 2000 (MARC 2000). Thank you for the opportunity to submit MARC 2000's views on the needs of the Mississippi Valley and especially the Upper Mississippi River Basin for fiscal year 2004.

MARC 2000 supports full efficient funding levels for the Upper Mississippi/Illinois River Navigation Feasibility Study and key major rehabilitation projects on the Upper Mississippi/Illinois Rivers, including the Environmental Management Program (EMP). We would like to specifically highlight the increasing backlog of navigation-related operation and maintenance projects in the entire Mississippi River

Valley. MARC 2000 rejects the call to raid the Inland Waterway Trust Fund (Trust Fund) for purposes other than it was originally created.

UPPER MISSISSIPPI/ILLINOIS RIVER NAVIGATION FEASIBILITY STUDY

This study is the most important "project" for the Upper Mississippi River Basin. Full efficient funding is critical to keep this study from falling even further behind. Re-initiation of the study along broader parameters has increased the cost once again. Every year we fail to complete this work adds burden to the system and increases the risk of failure of these 70-year-old lock and dam structures.

MARC 2000 requests an increase to the President's request for a total of $7.216 million for this study in fiscal year 2004 to keep the study on schedule. Alternatively, $3.8 million in fiscal year 2003 supplemental funds along with the President's $3.216 fiscal year 2004 request would be an even more efficient funding stream. This is the No. 1 priority of our coalition.

Linked to this study is the need to begin PED for both 1,200′ lock design and enhanced environmental restoration. MARC 2000 urges the appropriation of $8 million for this very important effort in providing a seamless process and for not falling further behind in assuring the region of a modernization program.

[In millions]

General Investigative	Budget Request	Needed Amount	Variance
Upper Miss Nav. Study	$3.216	$7.216	$3.8
Comprehensive Plan	.494	2.6	2.106
Upper Miss/Illinois PED	0	8.0	8.0
Subtotal	3.710	17.616	13.906

Addressing these functions immediately, as we approach the close of the study phase, prepares us for Congressional authorization for large-scale construction for the basin. Waiting until the study's completion to address design work causes at least 2 more unnecessary years in elevated competitive risk, a problem recognized in WRDA'99.

While this study evaluates navigation needs and environmental restoration options for the basin, conclusion of the Comprehensive Plan, along with full efficient funding, is needed so the Basin can evaluate all aspects including: navigation, flood control and environmental restoration.

CONSTRUCTION GENERAL AND MAJOR REHABILITATION

The lock and dam system on the Upper Mississippi, once considered a flagship for the Nation's principal artery, the Mississippi River, is virtually crumbling in some cases.

MARC 2000, in concert with the Inland Waterway Users Board, supports full efficient funding for key priority projects already underway, with priority given to Lock and Dam 24 at $17.2 million (+$4.2 million); Lock and Dam 11 at $6.5 million (+$5.187) and Lock and Dam 3 at $.6 million. A congressionally approved fiscal year 2003 new start at Lock and Dam 19 and a fiscal year 2004 new start at Lock and Dam 27 need attention this year as well. Funding for EMP has met requested levels, ensuring its credibility for fiscal year 2004.

[In millions]

Construction General and Major Rehabilitation	Budget Request	Needed Amount	Variance
Lock & Dam 24	$13.00	$17.20	$4.2
L&D 11	1.313	6.50	5.187
L&D 3	.6	.6	0
L&D 19	0	1.2	1.2
L&D 27	0	6.0	6.0
Environmental Management Program	33.320	33.320	0
Subtotal	51.943	78.636	26.690

As indicated in the preceding table, construction and general rehabilitation funding is severely lacking with an additional need of $26.690 million in fiscal year 2004. Consistent under funding by the President's budget results in inefficient timelines, extended schedules, delayed projects, and broken commitments from our

Federal Government, and the loss of benefits to the Nation from an efficient inland waterway system.

OPERATIONS AND MAINTENANCE

The President's budget continues to place a strain on the operations and maintenance (O&M) of the system. One example of this is the failure to fund an additional $26 million in non-deferrable maintenance and operations services, work that is essential to keeping the program working properly.

[In millions]

Operations and Maintenance	Budget Request	Needed Amount	Variance
Miss. River—StL	$35.473	$38.00	$2.527
Miss. River—Rock Island	44.429	54.429	10.00
Miss. River—St. Paul	36.056	45.405	9.394
Illinois River	27.615	31.915	4.3
Subtotal	143.573	169.749	26.176

Funding support for Operations and Maintenance has been lacking for the last 5 years. The result is an accumulated backlog of critical maintenance on the Upper Mississippi approaching $200 million in navigation needs alone. As O&M allotment fails to address the maintenance of our region's lock & dam sites, we face the greater risks of lock closures and the hundreds of millions of dollars costing the Nation via tows waiting for repairs to lock gates, chambers, and other parts of the system.

CRITICAL BACKLOG

An issue of paramount importance to the entire inland navigation system is new safety-imposed de-watering requirements for locking chambers. The recently discovered need to establish bulkheads at virtually every lock in our system will compound the resource allocation of existing dollars without additions to the President's Budget. At least $81 million is needed in the Mississippi Valley to address these concerns in fiscal year 2003–fiscal year 2005. The inability to de-water a lock resulting from emergency closures or winter rehabilitation work could bring the Mississippi River to a standstill.

OPPOSE RAIDING THE INLAND WATERWAY TRUST FUND

Even more disconcerting than lack of funding support and a growing backlog is the proposed raid of the Inland Waterway Trust Fund to be reallocated to O&M needs. This fuel tax depository, founded over 20 years ago, was a result of a unique agreement between the Federal Government and industry to establish a funding mechanism for costs toward major construction of our infrastructure. Through the years, industry has contributed more than a billion dollars into this fund, into which over $400 million now sits while we await the conclusion of the navigation study, and lose world market opportunities.

Proposals to use these dollars to cover 25 percent–50 percent of the cost of O&M will eliminate the balance of the fund in just 2½ years, exactly when an Upper Mississippi Basin modernization plan should be in place and begin to utilize those dollars for the purpose for which they were intended. The implications of this trust fund raid would also require additional .30–.40 cents per gallon to meet O&M needs alone, or a 200 percent tax increase. The Inland Waterway Trust Fund must be reserved for its original purpose. Anything less constitutes a violation of the agreement and trust forged between the Federal Government and industry in a good faith effort to ensure the future of our inland waterways.

PREPARED STATEMENT OF THE MOSS LANDING HARBOR DISTRICT, MONTEREY BAY, CALIFORNIA

Mr. Chairman and Members of the Subcommittee, on behalf of the Chairman and Members of the Board of Harbor Commissioners, thank you for the opportunity for me, Russell Jeffries, as President of the Board of Harbor Commissioners of Moss Landing Harbor District in California to submit prepared remarks to you for the record in support of the fiscal year 2004 Energy and Water regular appropriations measure.

The Commission recognizes and expresses its gratitude to our local Congressman, the Honorable Sam Farr, a valued member of the Appropriations Committee for his continued assistance and support on our behalf.

We express our profound appreciation to the Subcommittee and full Committee for its inclusion of approximately $2.750 million in fiscal year 2002 funds for periodic maintenance dredging of the federal entrance channel and the initiation of a first-ever Dredged Material Management Plan (DMMP) for the Harbor District in order to plan for orderly maintenance dredging of the federal channel and local berths over the next twenty or more years. This effort is supported by a working group organized under national dredging team local planning guidance, including representatives of the federal, state and local agencies, and other stakeholder and public interest groups with an interest in dredging activities.

To put our needs in proper perspective, our geographical location and marine ecosystem is unique in that the harbor district is located at the confluence of the Pajaro and Salinas Rivers in between two national treasures—the Monterey Bay National Marine Sanctuary and the Elkhorn Slough National Estuarine Research Reserve—precluding most potential upland disposal sites. The SF–12 Aquatic Disposal Site is grandfathered for sanctuary purposes. It is located fifty yards offshore at the apex of the Monterey Bay Submarine Canyon which plunges to a depth of 8,000 feet in less than one mile. Every year deposition, erosion, and flushing cycles transport thousands of tons of sedimentary material down the canyon like a chute—so much so that our dredged material is a miniscule amount measured against the total annual flushing event.

Periodic El Niño events deposit trace elements of DDT in our harbor sediments traced to Salinas Valley agriculture—America's salad bowl—as a natural sink. With no realistic long term alternative—including upland disposal—to continued use of our current disposal site, our very livelihood as the largest fishing port on the central coast and largest concentration of marine scientific research south of Seattle, is at stake.

Of amounts previously appropriated, approximately $2.4 million has been expended for maintenance dredging to date and $350,000 has been expended to begin the DMMP process. Most of that was transferred to the Corps of Engineers Waterways Experiment Station (WES) to prepare a preliminary Ecological Risk Assessment (ERA). We expect that something on the order of $1,250,000 will belatedly emerge in operations and maintenance funds in the fiscal year 2003 budget. Much of that has already been expended or will be used to reimburse the San Francisco District for program management costs, conduct of the required economic analysis (including of a finding of a very favorable current benefit cost ratio of 1.7 to 1), DMMP plan formulation and project scoping (including alternative upland disposal site analysis), and technical support to WES.

The completion of both the federal channel work and the Inner Harbor with a combination of beach replenishment and ocean disposal at the SF–12 historic disposal site marks the first time in a decade that we have returned to a normal three year maintenance cycle of the federal channel.

We are just now embarking on the heart of the ERA process defining a preliminary statement of work, identifying data gaps to drive the WES model, and initiating complementary local site-specific scientific studies, and with those results completing the remainder of the DMMP process.

To this end we request the Subcommittee's approval of $2.0 million in appropriations from the Operations and Maintenance General Account in fiscal year 2004 in order to complete the Ecological Risk Assessment and Dredged Material Management Plan so that the process is completed and plan implemented prior to the next periodic maintenance event scheduled to occur in fiscal year 2005.

With the assistance of the local scientific community, we are fortunate to have as much as three years of scientific data in the form of benthic community biomass and tissue sampling, and first-ever nearshore state-of-the-art bathymetric survey of the disposal site and Monterey Bay Canyon. These efforts should prove invaluable in measuring before and after direct impacts of dredged material disposal at the disposal site.

With the assistance of the San Francisco district, we were determined to take advantage of this year's dredging episode to do before and after measurement of both sedimentary transport at the disposal site and to measure any direct impacts on benthic communities—the source of any bioaccumulation of contaminated sediments in trace amounts. It appears that this will now occur with district support as we proceed to the use of current dredging activity as an experiment involving approximately 20,000 cubic yards from which we can derive valuable data.

Despite the drastic differences between the use of the WES ERA model adapted from aquatic Mississippi River application and our unique submarine canyon eco-

system and volume of material, the district has elected to proceed with a tracer study using European technology that may be of help in other areas with similar problems. We now recognize that we must undertake local site-specific data collection and studies to complement the WES activities or the end result will not be a document that will prove persuasive to the greater scientific community, federal and state regulatory agencies, and an informed and involved public in our community.

We now know that there is a considerable body of unpublished relevant data concerning the Monterey Bay Canyon and the impact, fate and effect of sedimentary material transport in the hands of the local scientific community that must be collected, catalogued, analyzed, and used both as input data and for comparison with the WES model so that each can operate as an invaluable countercheck on the output results of the other in predicting and directly measuring the impacts of dredged material disposal at our ocean disposal site.

We have agreed with the district that in order to remove any potential bias in data interpretation, an independent scientific peer review group will be convened utilizing EPA guidelines for ERA review to oversee this process.

The next periodic maintenance cycle would normally occur in fiscal year 2005. We do not anticipate either another El Niño event on the heels of the last severe one. Beyond completion of the ERA and gap filling scientific research and peer review, a significant part of the DMMP process is the identification and evaluation of potential upland disposal sites of which there are few choices in our situation. Nonetheless a long lead time would be necessary in our situation, front end funding of which would necessarily be a part in order to complete the DMMP process in exhaustive fashion.

From our perspective the better job we do completing the DMMP/ERA process now in developing a persuasive case to the various constituencies as a decision document supporting continued aquatic disposal for all but a very small fraction of total dredged material in exceptional circumstances over the twenty year span of the study will save significant amounts of scarce federal and local dollars in the future . . . that said, we sincerely hope our experience in this effort will:

—Produce both a useful and practical multidisciplinary decision document for those agencies exercising regulatory or oversight jurisdiction over dredging in both our and other settings; and

—Serve as a model for collaborative effort in dredged material disposal consensus decisionmaking in unique situations such as for other Corps districts and local sponsors seeking to balance required maintenance dredging to support navigation with the corresponding need to protect environmentally sensitive areas, in this instance the unique Monterey submarine canyon located at the heart of the Monterey Bay Marine sanctuary.

I am prepared to supplement my prepared remarks for the record in response to any questions that the Chair, Subcommittee Members, or staff may wish to have me answer. Thank you Mr. Chairman and Members of the Subcommittee. This concludes my prepared remarks.

PREPARED STATEMENT OF THE PORT OF GARIBALDI

Mr. Chairman and members of the Subcommittee, my name is Carol Brown. I am one of three elected Commissioners of the Port of Garibaldi, Oregon, located on Tillamook Bay on the Oregon Coast. We are thankful for the support provided by the Committee for fiscal year 2002 and 2003, and we also appreciate the opportunity to present our views on fiscal year 2004 appropriations issues.

APPROPRIATIONS REQUEST

The Port of Garibaldi requests an $8,000,000 appropriation for operations and maintenance (O&M) of Tillamook Bay and Bar, Oregon. These funds will allow the U.S. Army Corps of Engineers' (Corps) Portland District begin the protection, restoration and repair of the Tillamook Bay North and South Jetties. Specifically, the funds will allow the Corps to build a revetment near the North Jetty root, and perform additional restoration and repair work on the South Jetty.

The Committee provided an additional $200,000 for a Major Maintenance Report in fiscal year 2002, and an additional $300,000 for Plans and Specifications in fiscal year 2003. Both of these appropriations were made above the Administration's budget requests for the project. The Major Maintenance Report is nearly complete, and the Corps will begin Plans and Specifications soon after the completion of the report. We believe that the total cost to protect, restore and repair the jetties will be $10–$15,000,000. The Administration did not request funding for this project for fiscal year 2004.

REPORT ON THE TILLAMOOK BAY JETTY SYSTEM

There are serious problems with both jetties. The Corps' recent engineering analysis demonstrates that erosion on the north side of the North Jetty continues at a highly accelerated rate. Frequently, the U.S. Coast Guard (USCG) pulls its crewmembers out of the tower located near the root of the North Jetty because of the threat of a jetty breach at that site during periods of high seas. Should the breach occur, shellfish beds, a county park and a state highway would sustain severe damage. The USCG has also determined that deterioration of the South Jetty has created a dangerous threat to navigation safety.

A functional Tillamook Bay Jetty System is key to maintaining navigation safety, protecting both public and private property and the environment, and preserving the economic vitality of the Oregon Coast.

In December 2000, The Board of Commissioners of the Port of Garibaldi and Tillamook County prepared a report on the Tillamook Bay jetty system and bar to inform legislators and other concerned parties of the need to restore the jetties and their bar to safe, acceptable engineering standards. Excerpts of that report are included below.

There are three major issues currently associated with the deterioration of the system.

—There is a clearly documented increasing hazard to navigation from erosion around the ocean ends of both jetties and resultant damage to the bar, which is causing an escalating loss of life in boating accidents every year.

—There is a potentially significant loss of landmass containing recreational facilities and permanent structures in one area where the North Jetty has already breached near its root.

—There is data currently being collected (but incomplete at this time) which suggests a possible relationship between the deteriorated condition of the jetties and bar and the degree of flooding in some land areas surrounding Tillamook Bay.

The report contains a history of construction and repair of the jetties by the Corps, an overview of construction and repair results, a summary of an independent engineering report solicited by the Port and the Corps' own evaluations of the jetties' present condition, reasons for restoration of the jetties and bar, and the Commissioners' endorsement of repair of the jetty system and bar as both an urgent public safety measure and possible contribution to mitigation of flooding in the estuary. We will provide a copy of the report to the Committee upon request.

Background.—Since settlement in the 1800s, Tillamook County's primary industries have been dairy, water and timber oriented. Tillamook Bay and the five rivers which feed it have historically furnished an abundance of shellfish, salmon and other species of fresh-water and ocean food fish. Over the past century the area has become renowned as one of the West's premier sport fishing locations.

Tillamook County's economy has always depended on prime conditions in Tillamook Bay, its estuary and watershed for cultivation and use of these natural resources. However, human activities including forestry, agriculture and urban development have adversely impacted the entire Bay area by increasing erosion rates and landslide potential in the forest slopes and significantly reducing wetland and riparian habitat. All five rivers entering Tillamook Bay now exceed temperature and/or bacteria standards established by the Oregon Department of Environmental Quality. The installation of a north jetty on Tillamook Bay begun in 1912 caused increased erosion of the Bay's westerly land border, Bayocean Spit, on the ocean side. The Spit breached in 1950. This allowed the Bay to fill with ocean sands on its southern and western perimeters and caused a major reduction in shellfish habitat, sport-fishing area, and an increase in the cross-section of the bar. A south jetty begun in 1969 helped stabilize the Spit and created the navigation channel presently in use.

Increasingly poor water quality in the Bay's feeder rivers and a substantial loss of marine life over the past twenty-five years enabled Tillamook Bay to become part of the National Estuary Program in 1992. The Project's scope of study included the estuary and watershed. One of the stated goals in the Project's final Comprehensive Conservation and Management Plan is "the reduction of magnitude, frequency and impact of flood events." This goal was found to be consistent with the scope of study of the Corps' Feasibility Study for Water Resources in Tillamook County now being conducted, and was incorporated into this new project.

Previous Corps' evaluations of jetty systems clearly state the adverse effects of jetty deterioration and infilling of channels and bars on tidal prism (the rate at which water flows into and out of the Bay) and indicate that they may influence flooding in a bay's estuary. During the past thirty-six months measurements have

been taken of differential water levels in Tillamook Bay and its estuary and speeds of tidal flows during normal and high water events. This data suggests an increase in the cross-section of the Tillamook Bay bar and some channel infilling, which may be affecting estuarine flooding. These measurements are of stated interest to the Corps. The Port of Garibaldi, many Tillamook County businesses that have been victims of flooding, and some governmental agencies concerned with various aspects of the flooding issue are supporting continuing gathering of these measurements of water levels and tidal flow speeds.

While the conditions of jetties and their resultant bars invariably and continually affect the bay on which they are constructed, their basic function is the creation of a safe channel between ocean and harbor for the transit of maritime traffic. As originally designed and constructed, the Tillamook Bay jetties accomplished this. Due to their present state of deterioration, that initial effectiveness has been substantially reduced.

Results in Brief.—Tillamook County has suffered a series of devastating floods since the winter of 1996. The storms caused by El Niño/La Niña events have increased the rate of deterioration of Tillamook Bay's jetties and bar. Their present condition is raising increasing navigational safety issues. The North Jetty is now breached in an especially sensitive location near its root where the wall protects inhabited land, and the eroded area is increasing in size. A significant quantity of water flowing through this area would result in loss of the existing landmass adjacent to it and the structures on it. A second area of deterioration on the North Jetty at the beach line is threatening to breach. But in either location, an infill of the channel with sands would reduce the navigability of the channel, further slow the rate of tidal flow and impact the cross-section of the bar. An even greater degree of danger to boaters than that which presently exists would surely be created.

The Bayocean Spit breach in 1950 buried one-third the Bay's shellfish habitat under ocean sands and did extensive damage to estuarine lands. The lost shellfish habitat has never been recovered. The direction of tidal flow in the Bay is such that a breach in the North Jetty would cause additional buildup of ocean sands to the inside edge of the Spit. This infill would eventually deposit toward the south end of the Bay and demolish even more shellfish habitat and sport fishing area, adversely impacting Tillamook County's already reduced economy. The harbor area would certainly suffer some degree of damage, resulting in increased commercial hardship.

But the most serious impact of jetty and bar deterioration has been on navigational safety. The USCG Tillamook Bay Station has publicly commented on the threat of a jetty breach to its observation tower, and transit danger to sport, commercial and their own vessels due to erosion effects, which now constitute a maritime hazard. Many local sport and most commercial fishermen have abandoned Garibaldi as a permanent berth and sought harbor facilities where channel navigation is easier and transit of the bar less treacherous. The USCG has formally requested that the Corps "restore the north and south jetties to their original dimensions, and remove materials from the original construction that may now pose a maritime hazard."

Principal Findings.—Since the last repair to the South Jetty, approximately 302 feet have been lost to erosion, 215 feet of that amount since 1998. The North Jetty was designed and authorized by the USACOE to be 5,700 feet in length. As of December 2000, approximately 275 feet of the ocean end of the North Jetty is eroded and remains below mean lower low water level—submerged, in other words. In 1990 the USACOE capped the head of the North Jetty from its above-water point going landward for a distance of 161 feet in an unsuccessful attempt at erosion control. The North Jetty remains at least 300 feet short of its engineering-approved and authorized length. In the spring of 2001, the Corps put in place temporary barriers to provide support to the North Jetty at the root. These temporary barriers have largely eroded since that time.

Because of the increased magnitude of storms since 1996, both jetties have suffered far more damage than that normally expected to occur to such structures. Erosion and displacement of large support stones at the ocean ends of both jetties is particularly severe, and the submerged ends of both structures are being pushed southward. The USCG now identifies these two areas, adjacent to popular sport fishing locations, as extremely dangerous locations. Water swirls around the displaced boulders causing eddies sometimes strong enough to suck small boats into them. Even in calm, flat seas, water breaks over these boulders into waves powerful enough to throw smaller vessels onto the jetties. (This was the case on September 22, 2000, when a sport fishing boat inadvertently drifted inside the 200 foot exclusion zone and was dashed onto the end of the South Jetty. Two people were killed

and a third injured, this incident being the most recent loss of life this year in the accident record of the Tillamook Bay jetties and bar.)

Conclusion.—On behalf of the Port of Garibaldi and Tillamook County, I thank the Committee for giving me this opportunity to provide testimony on the Tillamook Bay Jetty System.

PREPARED STATEMENT OF THE COOSA-ALABAMA RIVER IMPROVEMENT ASSOCIATION

SUMMARY

Mr. Chairman & distinguished Committee members, this statement includes the following: A) A plea to rend maintain our Nation's inland waterways system as a vital part of the national transportation infrastructure; B) A request for support in the following areas: 1) Sufficient funding to maintain and improve our nation's inland waterway system; 2) O&M funding for federal projects in the Coosa-Alabama Basin; 3) Funding to renovate and upgrade a recreation site on the Alabama River; 4) Funding to complete backlogged maintenance items to keep the Alabama River navigation channel a viable economic asset to the State of Alabama.

EXPANDED STATEMENT

The Coosa-Alabama River Improvement Association is a large and diverse group of private citizens and political and industrial organizations that sees the continued development of the Coosa-Alabama Waterway as an opportunity for economic growth in our region as well as the Nation. The attached statements from many of our members and interested parties in our region call for measures to assure a viable inland waterways system and are indicative of the strong support of the inland waterways system in our region of the country.

Our Association is concerned about the deteriorating waterway infrastructure throughout the Nation. The waterways are vital to our export and import capability, linking our producers with consumers around the world. Barges annually transport 15 percent of the Nation's commodities, 1 out of every 8 tons. It is incumbent upon the Federal Government to maintain and improve this valuable national asset. Therefore, we ask Congress to appropriate funds for required maintenance and construction to keep the waterways the economic multiplier they are. To maintain the inland waterways facilities and to accommodate vitally needed growth will require a minimum of $5 billion. The Federal Government must commit to improve the waterways infrastructure or risk serious economic consequences and jeopardizing large public benefits.

We are concerned that any budget strategy that reduces funding for the operations and maintenance of inland and intracoastal waterways will have a detrimental effect on the economic growth and development of the river system. We are especially concerned about the President's direction to direct funding away from those waterways suffering temporary downturns in barge transportation. We cannot allow that to happen. In the Alabama-Coosa River Basin, we must be able to maintain the existing river projects and facilities that support the commercial navigation, hydropower, and recreational activities so critical to our region's economy. The first priority must be the O&M funding appropriated to the Corps of Engineers to maintain those projects.

The President's Budget for fiscal year 2004 does not provide enough funding to keep the Alabama River navigation channel open. Most conspicuous is the absence of money for dredging, a vital element of keeping the channel operational. We ask Congress to reinstate the dredging capability on the Alabama River by adding $3 million for dredging on the Alabama-Coosa River project. Without dredging, the channel is vulnerable to being closed for several months of the year. Without the channel, the State of Alabama has no hope of attracting prospective users of barge transportation in the Alabama River basin, which traverses counties with some of the highest unemployment in the Nation. We cannot close any opportunities to bring jobs to these counties. Several prospective barge-using shippers (representing 3 to 4 million tons a year) are currently evaluating the Alabama River basin for relocating or expanding their businesses. A fully-maintained channel is crucial to their decision. Maintaining the channel also dampens the rail and truck prices for movement of goods between Mobile and Montgomery. The relatively small investment in this channel pays large dividends for the consumers and businesses in Alabama.

Recreation is a major economic factor on our waterways. Boating, fishing, swimming, and camping have become an indispensable economic tool for many of our lake and river communities, and, in that respect, the Alabama River has extraordinary potential. One of the most promising sites for development is the Corps-

owned Swift Creek campground. Now a minimally developed site, Swift Creek needs to be upgraded and renovated to serve an ever-increasing demand for recreational facilities on the waterway. We ask that $1.5 million be added to the RF Henry project to renovate and upgrade Swift Creek.

Studies predict international trade, particularly with Latin America, over the next 20 years will double or even triple current levels of activity. Containerized cargo is expected to increase dramatically as shippers move away from break bulk shipping and realize the economies of moving goods in containers. The primary method of moving that cargo out of the Port of Mobile is by truck and rail. There is limited capacity to increase rail. Our highways cannot accommodate the expected increase in truck traffic. The only logical, safe, and environmentally-friendly alternative mode of transportation is by water. With Montgomery sitting at a junction of road, rail, air, and water modes, it makes sense to evaluate the feasibility of an intermodal port in the Montgomery area. We ask the Committee to include $100,000 in General Investigations to allow Mobile District of the U.S. Army Corps of Engineers to conduct this study, which was authorized by resolution (Docket 2699) in July 2002 by the House Transportation and Infrastructure Committee of the 107th Congress.

Project	Fiscal Year 2003 Appropriation	President's Budget Fiscal Year 2004	Association's Fiscal Year 2004 Budget Request
Alabama-Coosa River, AL [1] (AL River incl Claiborne L&D)	$3,174,000	$2,961,000	$5,961,000
Miller's Ferry L&D	7,094,000	5,429,000	5,429,000
Robert F. Henry L&D [2]	5,858,000	5,726,000	7,326,000
Lake Allatoona, GA	6,456,000	6,000,000	6,000,000
Carters Lake, GA	9,958,000	10,012,000	10,012,000
Totals	34,413,000	30,128,000	34,728,000

[1] Includes dredging from the mouth of the Alabama River through Claiborne L&D to Miller's Ferry. Coosa River not included. The Fiscal Year 2004 Budget Request includes funding for maintenance dredging to keep the Alabama River navigation channel open.

[2] Fiscal year 2004 request includes $1.5 million for upgrade and rehabilitation of Swift Creek campground and $100,000 for a Federal study to determine feasibility of an intermodal port in the Montgomery-Selma, area.

In summary, we request your support in the following areas:

—Sufficient O&M funding of the US Army Corps of Engineers Civil Works budget to maintain the Alabama River navigation channel, including dredging below Claiborne Dam;

—Funding to renovate and upgrade Swift Creek campground on the Alabama River; and

—Funding to evaluate the feasibility of an intermodal port in the Montgomery-Selma area.

Thank you for allowing us to submit this testimony and for your strong support of the Nation's waterways.

PREPARED STATEMENT OF THE PERKINS COUNTY RURAL WATER SYSTEM, INC.

The Perkins County Rural Water System, Inc. respectfully submits this written testimony to the Appropriations Sub-Committee on Energy and Water Development for appropriations for fiscal year 2004.

Perkins County is located in northwestern South Dakota on the North Dakota State line. We are the second largest county in South Dakota and have a total of 2,866 square miles. Perkins County has a population of 3,542 people, of which 2,065 live in the two incorporated towns of Lemmon and Bison. Number one business in our country is agriculture and support services for the farmer and rancher. We have three manufacturing plants in Lemmon that employ approximately 130–140 full-time jobs. Other large employers in Perkins County are Federal Government offices, State highway district offices, rural electric offices, county government, hospital and clinic and three school districts. Perkins County and the rest of northwestern South Dakota is a semi-arid climate with an annual precipitation of 14 inches, of which 76 percent falls normally in April through September.

History of this project goes back to 1982 when a group of farmers and ranchers in Perkins County were contacted by Southwest Pipeline project in North Dakota if they would be interested in obtaining water to serve Perkins County. At that time, approximately 100 farms and ranches and the towns of Bison and Lemmon were interested, so Perkins County was included in their feasibility study. In November of 1992, Southwest Water Pipeline Project had grown to the point that Perkins County was contacted about receiving water from the project and to be in-

cluded in the engineering design work. A committee of interested landowners and representatives from the two incorporated towns were organized through the Perkins County Conservation District/Natural Resources Conservation Service. From this committee, nine directors volunteered to serve on a board to study the feasibility of rural water for the county. In March of 1993, Perkins County Rural Water System, Inc. was organized as a non-profit organization. Two grants were obtained from the South Dakota Department of Environment and Natural Resources for $50,000 each to do a feasibility study. At the same time, the Directors were able to acquire good intention fees from rural landowners, State land, Federal land, and the two towns for a total of $28,250 to cost share the State money on an 80–20 share basis. A feasibility study was conducted for Perkins County Rural Water by KBM, Inc. of Grand Forks, North Dakota, and the Alliance of Rapid City, South Dakota in 1994. In the 1995–96 South Dakota legislature, we obtained State authorization and appropriation of $1 million. This money was used to up-size the pipe in North Dakota for our capacity and for administration costs of Perkins County Rural Water. We have signed a contract with the North Dakota State Water Commission to deliver 400 gallons per minute to the border. We have also signed contracts with both towns to be the sole supplier for their water systems. We have had a very good response from the rural farmers and ranchers in that 50 to 60 percent have signed and paid for water contracts delivered to their farmstead. The total for those contracts equals $81,500 plus obligations of another $72,000 when the project becomes a reality. To the ranchers and farmers of Northwestern South Dakota, that is a substantial investment for them to make. We also have signed a contract with a grazing association that run livestock on U.S. Forest Service land. In the fall of 1999, we received Federal authorization with the 106th Congress for a 75 percent grant of $20 million. We have received appropriations for the last two appropriation's bill in 2002 and 2003 for $3.4 million and $4.3 million respectively. The budget presented has been sent to the Bureau of Reclamation in Bismarck, North Dakota to be entered in their budget processing for 2004.

During our feasibility study, conducted by the combination of two engineering firms of the Alliance of South Dakota and KBM, Inc. of North Dakota, several alternatives were looked at to provide Perkins County with quality water. These alternatives were pumping water from Shadehill Lake or from deep-water wells drilled into the Fox Hills formation. Due to the high salt content, both of these sources would have to use reverse osmosis treatment that is very costly to build and operate. Buying bulk water from a large rural water system turned out to be the most feasible. Water from Southwest Water Authority is already treated at a large treatment plant and distributed to the border of North Dakota and South Dakota.

The quality of water in Northwestern South Dakota is the main concern for the health and well being of the people. Although the water in Perkins County typically meets the primary standards established by the U.S. EPA, most of the chemicals in the water are exceedingly high by the State of South Dakota standards. Due to the fact that new standards by the EPA are set each year, it will be impossible for small water systems such as those in our towns to comply. Just across the line in North Dakota, two small towns have exceeded the fluoride levels from the same aquifer that water is pumped in South Dakota. At this time, fluoride in the Town of Lemmon is within one- to two-tenths of the MCL set by EPA through the Safe Drinking Water Act. In the deep wells of both Bison and Lemmon, the total dissolved solids, sulfates, and sodium consistently exceed the recommended levels set by EPA. Sodium is the major concern with the water in Perkins County. Running at 450 parts per million and above, the medical community has problems with people who have to be on a salt free diet. In the rural areas, bacteria contamination has been noted in wells that dug into shallow aquifers. The rural population has noticed declining water levels in these same wells due to drought and over use. We are currently in a drought that has dried up any surface water supplies for livestock. If water had been available, some ranches would not have had to sell or ship livestock out of the country last fall.

Inserts include the request for fiscal year 2004. We are able to do this much construction work in 1 year and hope to finish the project in 6 years with this size appropriation per year.

2004 BUDGET

Income:	
Bureau of Reclamation [1]	$5,000,000.00
Projected Water Sales	259,000.00

2004 BUDGET—Continued

All Other Income	101,000.00
Total Income	5,360,000.00
Expenses:	
Administrative expenses	195,150.00
O&M expenses including water purchases	156,500.00
Engineering, construction, contingency	5,008,350.00
Total Expenses	5,360,000.00

[1] Request is for $5,000,000.00 in the Bureau of Reclamation Budget.

Water quality and quantity in Perkins County has been a plague for the county over many years. Droughts, both long and short term, are a fact of life for the people in this area. Being able to obtain quality water during these periods and having a backup system for other times would make the life in the country easier. Due to our isolation from major water supplies, this may be our only chance to obtain water at an affordable cost.

At the present time, we have finished our final engineering report, environmental and cultural resources reports, and, with a 50–60 percent signup rate, we are still signing up farmers and ranches. Upon obtaining the amount requested, we would be able to proceed with construction in the spring of 2004 and have the system completed in 6 years. We know that funds are hard to obtain, but finding quality water in our area is even harder. Thank you for reading our report and, on behalf of the people of Perkins County South Dakota, we hope you can find the funds to build our system.

Prepared Statement of the Pontchartrain Levee District

MISSISSIPPI RIVER AND TRIBUTARIES PROJECT

FISCAL YEAR 2004 RECOMMENDED APPROPRIATIONS

Project	Recommended
Mississippi River & Tributaries Flood Control Project	$435,000,000

COMMENTS ON PROJECTS

History.—The Mississippi River and Tributaries Project (MR&T) was authorized following the Record Flood of 1927 that inundated some 26,000 square miles of the fertile and productive land in the Alluvial Valley of the Mississippi River, left 700,000 people homeless, stopped all East/West Commerce and adversely affected both the Economy and Environment of the entire Nation.

The MR&T Project has prevented over $180 billion in flood damages for an investment of less that $70 billion and in addition the Nation derives about $900 million in Navigation Benefits each year due to the MR&T.

The Project is not complete and we cannot pass another event as great as the 1927 Flood safety to the Gulf, this is an Historical Event—not the much greater Project Flood.

Levees.—The Mississippi River and Tributaries Flood Control Project has been under construction as an authorized project for about 76 years, and yet there are a number of segments not yet complete. Although most levees are complete to grade and section in south Louisiana and extensive reach from the Old River Control Structure in lower Concordia Parish upstream to the Lake Providence area is still below grade. Should these levees be overtopped during a major flood, those people in south Louisiana know full well those flood waters are going to head southward. Other items not yet complete are slope protection and crown surfacing. It is recommended that a minimum of $50,645,000 be appropriated for Mississippi River Levees.

Channel.—The second item of indispensable importance to the Pontchartrain Levee District and the State of Louisiana is Channel Improvements. Main line levees must be protected from caving banks throughout this lower river reach where extremely narrow battures are the last line of defense against levee crevasses and failures. If caving banks are not controlled the only answer is "setback". Simply

stated there is no room remaining for levee setbacks in the Pontchartrain Levee District. Revetment construction must be annually funded to prevent levee failures, land losses and relocations. This item also benefits the 55-foot depth navigation channel. The Pontchartrain Levee District recommends at least $44,017,000 be appropriated for fiscal year 2004 for Mississippi River Channel Improvements.

Total Appropriation Request for MR&T.—The $435 million we are requesting for Fiscal Year 2004 Appropriations for the MR&T Project is the minimum amount we consider necessary to continue with vital on-going construction work and to do the barest amount of maintenance work that is required to prevent further deterioration of the Federal investment already made to our Flood Control and Navigation Work and to continue to work of restoring and protecting our natural environmental including providing for adequate water supply. The total appropriation we are requesting is attached.

Opposition.—We strongly oppose the Administration's recommendation in its fiscal year 2004 Budget Submission to use funds from the INLAND WATERWAYS TRUST FUND to pay for a part of the Operations and Maintenance Cost of the Inland Waterways. The Trust Fund was established in 1978 to make available monies for Construction and Rehabilitation for navigation on the Inland and Coastal Waterways, not for Operations and Maintenance. If Congress allows this recommendation the Trust Fund would be drained in a short period of time and the 50 percent share to pay for Construction for Navigation would not be available unless the tax on fuel used by tow-boats was raised, some day doubled, which would make it extremely difficult for barge operators to continue their operations and making it more expensive for farmers to get their products to market and for the public to realize savings in transportation cost for bulk commodities such as fuel, oil, gasoline and other items shipped by barge.

We are also strongly opposed to any action that would transfer all or any part of the U.S. Army, Corps of Engineers Civil Works mission to other agencies or department of the Federal Government. It has been reported that the Administration would desire to transfer the Corps NAVIGATION program to the Department of Transportation, FLOOD CONTROL AND ENVIRONMENTAL RESTORATION to the Department of the Interior, and the REGULATORY PROGRAMS to EPA. The U.S. Army Corps of Engineers has rendered extremely valuable services to this Nation since 1802 (over 200 years). The Corps has created an Inland Waterways System that is the envy of the rest of the world. This commercial transportation system is critical to the Nation's economy and environmental well-being and part of this system is used to deploy military equipment in support of the war on terrorism. The Corps has also been in the forefront to provide Flood Control and Environmental Restoration Projects, they have also supported our troops in every armed conflict this Nation has engaged in. It would be a serious mistake of Nation-wide impact to spread the functions of the Corps into several parts and across the Federal Bureaucracy. This Nation would lose a wonderful asset that we have enjoyed for many, many years.

We are strongly opposed to any proposal to "out-source" or contract-out any of the present positions in the Corps of Engineers' Civil Works function. The Secretary of the Army has proposed that 90 percent of all Corps of Engineers' positions be contracted out, this would eliminate approximately 32,000 current employees and make it almost impossible to continue with our work.

COMMENTS

The Pontchartrain Levee District has full realization of the necessity of keeping these Subcommittees advised of current and future needs for Federal monetary support on vital items of the MR&T Flood Control Project. Beginning in 1995 the subcommittees refused to give audience to the Mississippi Valley Flood Control Association. This year no oral testimony will be heard. Again, this is a great travesty of justice. Such actions seriously erode the partnership that has been built between Congress, the Corps of Engineers and local sponsors.

We trust that this pattern will revert back to the 63-year practice of hearing our delegation.

CONCLUSION

The Board of Commissioners, Pontchartrain Levee District, compliments the Subcommittees on Energy and Water Development for its keen understanding of real needs for the MR&T Flood Control Project along with Hurricane Protection and efficient, alert actions taken to appropriate funds for the many complex requirements. We endorse recommendations presented by the Association of Levee Boards of Louisiana, Department of Transportation and Development, Mississippi Valley Flood

Control Association and Red River Valley Association. The Board of Commissioners desires our statement be made a part of the record.

FISCAL YEAR 2004 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS

Project and State	Request
SURVEYS, CONTINUATION OF PLANNING AND ENGINEERING & ADVANCE ENGINEERING & DESIGN:	
Memphis Harbor, TN	$700,000
Germantown, TN	171,000
Millington, TN	127,000
Fletcher Creek, TN	150,000
Southeast Arkansas	1,000,000
Coldwater Basin Below Arkansas	500,000
Quiver River, MS	100,000
Alexandria, LA to the Gulf of Mexico	700,000
Morganza, LA to the Gulf of Mexico	7,992,000
Donaldsonville, LA to Gulf of Mexico	1,400,000
Spring Bayou, LA	832,000
Tensas River, LA	500,000
Donaldsonville Port Development, LA	100,000
Collection & Study of Basic Data	695,000
SUBTOTAL—SURVEYS, CONTINUATION OF PLANNING & ENGINEERING & ADVANCE ENGINEERING & DESIGN	14,967,000
CONSTRUCTION:	
St. John's Bayou-New Madrid Floodway, MO	7,600,000
Eight Mile Creek, AR	2,050,000
Helena & Vicinity, AR	3,407,000
Grand Prairie Region, AR	24,700,000
Bayou Meto, AR	16,000,000
West Tennessee Tributaries, TN	620,000
Nonconnah Creek, TN	3,068,000
Wolf River, Memphis, TN	2,500,000
Reelfoot Lake, TN	1,240,000
St. Francis Basin, MO & AR	6,300,000
Yazoo Basin, MS	53,555,000
Atchafalaya Basin, LA	21,235,000
Atchafalaya Basin Floodway	14,200,000
MS Delta Region, LA	3,400,000
Horn Lake Creek, MS	395,000
MS & LA Estaurine Area, MS & LA	30,000
Channel Improvements, IL, KY, MO, AR, TN, MS & LA	44,017,000
Mississippi River Levees, IL, KY, MO, AR, TN, MS & LA	50,645,000
SUBTOTAL—CONSTRUCTION	254,962,000
SUBTOTAL—MAINTENANCE	208,433,000
SUBTOTAL—MISSISSIPPI RIVER & TRIBUTARIES	478,362,000
LESS REDUCTION FOR SAVINGS & SLIPPAGE	−43,362,000
GRAND TOTAL—MISSISSIPPI RIVER & TRIBUTARIES	435,000,000

Prepared Statement of the Fifth Louisiana Levee District

In order to continue the current level of construction on the Mississippi River and Tributaries Project (MR&T), and to provide proper maintenance of the completed portions, it is essential that the $435 million, as requested by the Mississippi Valley Flood Control Association for fiscal year 2004 (copy attached), be appropriated for the MR&T Project.

Less than $10 billion has been invested in the MR&T Project since its authorization following the great flood of 1927, but even in its incomplete stage, the MR&T project has prevented over $180 billion in flood damages and makes possible about $900 million in navigation benefits each year.

Levee enlargements have been completed along most of the Mississippi River Levee, with one exception being portions of the system in Louisiana where people and property remain vulnerable to a Levee that is the lowest in the MR&T system, even though it conducts to the Gulf 41 percent of the total water runoff of the Nation. It is imperative that construction of these Levees remain a top priority for the Administration and U.S. Army Corps of Engineers and that adequate funding be provided.

I urge reconsideration of the Administration's recommendation (in its Fiscal Year 2004 Budget Submission) to fund Operations and Maintenance cost of the Inland Waterways by using funds from the Inland Waterways Trust Fund. Depletion of that fund will have long term effects on construction for navigation, and ultimately on commerce and individuals dependent upon River transportation of bulk commodities.

It is essential that the U.S. Army Corps of Engineers remain intact and not be divided into separate, smaller entities and transferred to administration of other established Departments. The Inland Waterways System created by the Corps is recognized world-wide and has set the standard for construction of water control and navigational systems. It must continue to function as one unit to retain its effectiveness.

It is vital to the people of Louisiana and to the Nation that the Mississippi River and Tributaries Project be completed as designed and as quickly as possible. To transfer any part of the Civil Works mission, or to "out-source" or contract-out positions in the Corps' Civil Works organization, as proposed by the Secretary of The Army, will wreck the current construction and maintenance time table and eliminate approximately 32,000 current employees.

I respectfully request that $435 million be appropriated for the MR&T Project for the coming fiscal year, and urge your support for protection of the Inland Waterways Trust Fund and the structure of the U.S. Army Corp of Engineers as it currently exists.

FISCAL YEAR 2004 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS

Project and State	MVFCA Request
SURVEYS, CONTINUATION OF PLANNING AND ENGINEERING & ADVANCE ENGINEERING & DESIGN:	
Memphis Harbor, TN	$700,000
Germantown, TN	171,000
Millington, TN	127,000
Fletcher Creek, TN	150,000
Southeast Arkansas	1,000,000
Coldwater Basin Below Arkansas	500,000
Quiver River, MS	100,000
Alexandria, LA to the Gulf of Mexico	700,000
Morganza, LA to the Gulf of Mexico	7,992,000
Donaldsonville, LA to Gulf of Mexico	1,400,000
Sprung Bayou, LA	832,000
Tensas River, LA	500,000
Donaldsonville Port Development, LA	100,000
Collection & Study of Basic Data	695,000
SUBTOTAL—SURVEYS, CONTINUATION OF PLANNING & ENGINEERING & ADVANCE ENGINEERING & DESIGN	14,967,000
CONSTRUCTION:	
St. John's Bayou-New Madrid Floodway, MO	7,600,000
Eight Mile Creek, AR	2,050,000
Helena & Vicinity, AR	3,407,000
Grand Prairie Region, AR	24,700,000
Bayou Meto, AR	16,000,000
West Tennessee Tributaries, TN	620,00
Nonconnah Creek, TN	3,068,000
Wolf River, Memphis, TN	2,500,000
Reelfoot Lake, TN	1,240,000
St. Francis Basin, MO & AR	6,300,000
Yazoo Basin, MS	53,555,000
Atchafalaya Basin, LA	21,235,000
Atchafalaya Basin Floodway	14,200,000

FISCAL YEAR 2004 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS—Continued

Project and State	MVFCA Request
MS Delta Region, LA	3,400,000
Horn Lake Creek, MS	395,000
MS & LA Estaurine Area, MS & LA	30,000
Channel Improvements, IL, KY, MO, AR, TN, MS & LA	44,017,000
Mississippi River Levees, IL, KY, MO, AR, TN, MS & LA	50,645,000
SUBTOTAL—CONSTRUCTION	254,962,000
SUBTOTAL—MAINTENANCE	208,433,000
SUBTOTAL—MISSISSIPPI RIVER & TRIBUTARIES	478,362,000
LESS REDUCTION FOR SAVINGS & SLIPPAGE	−43,362,000
GRAND TOTAL—MISSISSIPPI RIVER & TRIBUTARIES	435,000,000

PREPARED STATEMENT OF THE BRAZOS RIVER HARBOR NAVIGATION DISTRICT

On behalf of the Brazos River Harbor Navigation District and the users of Freeport Harbor, we extend gratitude to Chairman Domenici and members of the subcommittee for the opportunity to submit testimony in support of the feasibility study for the proposed channel improvement project for Freeport Harbor and Stauffer Channel, Texas.

We express full support of the inclusion in the fiscal year 2004 budget for: Second phase of a Corps of Engineers feasibility study for Freeport Harbor, Texas—$500,000.

HISTORY AND BACKGROUND

Port Freeport is an autonomous governmental entity authorized by an act of the Texas Legislature in 1925. It is a deep-draft port, located on Texas' central Gulf Coast, approximately 60 miles southwest of Houston, and is an important Brazos River Navigation District component. The port elevation is 3 to 12 feet above sea level. Port Freeport is governed by a board of six commissioners elected by the voters of the Navigation District of Brazoria County, which currently encompasses 85 percent of the county. Port Freeport land and operations currently include 186 acres of developed land and 7,723 acres of undeveloped land, five operating berths, a 45-inch deep Freeport Harbor Channel and a 70-foot deep sink hole. Future expansion includes building a 1,300-acre multi-modal facility, cruise terminal and container terminal. Port Freeport is conveniently accessible by rail, waterway and highway routes. There is direct access to the Gulf Intracoastal Waterway, Brazos River Diversion Channel, and, State Highways 36 and 288. Located just 3 miles from deep water, Port Freeport is one of the most accessible ports on the Gulf Coast.

PROJECT DESCRIPTION

The Fiscal Year 2002 Energy and Water Appropriations signed into law included a $100,000 appropriation to allow the United States Army Corps of Engineers (USACE) to conduct a reconnaissance study to determine the Federal interest in an improvement project for Freeport Harbor, Texas. The USACE, in cooperation with the Brazos River Harbor Navigation District as the local sponsor, has completed that study. The report indicates that "transportation savings in the form of National Economic Development Benefits (NED) appear to substantially exceed the cost of project implementation", thus confirming "a strong Federal interest in conducting the feasibility study of navigation improvements at Freeport Harbor". In fact, the Corps anticipates a benefit to cost ratio of the project to be at an impressive more than 20 to 1 benefit to cost.

Port Freeport has the opportunity to solidify significant new business for Texas with this improvement project. In addition, the improvement to the environment by taking a huge number of trucks off of the road, transporting goods more economically and environmentally sensitive by waterborne commerce is infinitely important to the community, the State, and the Nation. Moreover, the enhanced safety of a wider channel cannot be overstated.

ECONOMIC IMPACT OF PORT FREEPORT

Port Freeport is 16th in foreign tonnage in the United States and 24th in total tonnage. The port handled over 25 million tons of cargo in 2001 and an additional 70,000 T.E.U.'s of containerized cargo. It is responsible for augmenting the Nation's economy by $7.06 billion annually and generating 30,000 jobs. Its chief import commodities are bananas, fresh fruit and aggregate while top export commodities are rice and chemicals. The port's growth has been staggering in the past decade, becoming one of the fastest growing ports on the Gulf Coast. Port Freeport's economic impact and its future growth is justification for its budding partnership with the Federal Government in this critical improvement project.

DEFENSE SUPPORT OF OUR NATION

Port Freeport is a strategic port in times of National Defense of our Nation. It houses a critically important petroleum oil reserve—Bryan Mound. It also is the only port in Texas that is being considered by the United States Navy and General Dynamics as the site for the building of Amphibious Assault Vehicles. Its close proximity to State Highways 36 and 288 make it a convenient deployment port for Fort Hood. In these unusual times, it is important to note the importance of our ports in the defense of our Nation and to address the need to keep our Federal waterways open to deep-draft navigation.

COMMUNITY AND INDUSTRY SUPPORT

This proposed improvement project has wide community and industry support. The safer transit and volume increase capability is an appealing and exciting prospect for the users of Freeport Harbor and Stauffer Channel. The anticipated more than 20-to-1 benefit-to-cost ratio that was indicated from the Corps of Engineers reconnaissance study firmly solidified the Federal interest.

WHAT WE NEED FROM THE SUBCOMMITTEE IN FISCAL YEAR 2004

The Administration's budget included $250,000 for the first phase of the feasibility study, which will be conducted at a 50/50 Federal Government/local sponsor share. The Corps had indicated a capability for Fiscal Year 2004 of $500,000 to continue the feasibility study and keep this project on an optimal and most cost-efficient time frame for the Federal Government and the local sponsor. We respectfully request the additional $250,000 for fiscal year 2004.

PREPARED STATEMENT OF CAMERON COUNTY, TEXAS

On behalf of Cameron County and the users of the Gulf Intracoastal Waterway, (GIWW) Texas, we extend gratitude to Chairman Domenici, and members of the subcommittee for the opportunity to submit testimony in support of an appropriation to direct the United States Army Corps of Engineers (USACE) to conduct a reconnaissance study to reroute the GIWW.

We express full support of the inclusion in the fiscal year 2004 budget for: First Phase of feasibility study—$500,000.

HISTORY AND BACKGROUND

On September 15, 2001, a tugboat and several barges struck the Queen Isabella Causeway on the Gulf Intracoastal Waterway at the mouth of the Brownsville Ship Channel east of Port Isabel. The accident took the lives of eight people. On May 2, 2002, three barges being pushed by a tug collided with the swing bridge at Port Isabel, Texas, closing the waterway and stranding residents of Long Island Village. These accidents prompted Cameron County to request a reconnaissance study to study realignment of the portion of the Gulf Intracoastal Waterway near the swing bridge to straighten the circuitous route, thus significantly reducing the threat of future accidents.

A January 1997 Reconnaissance Report of the Gulf Intracoastal Waterway-Corpus Christi Bay to Port Isabel, Texas (Section 216), was conducted by the United States Army Corps of Engineers. The study was initiated to determine the Federal interest in rerouting the GIWW. The information available at the time indicated a less than favorable benefit-to-cost ratio for the proposed realignment. Since the September 15 incident, the Corps, Cameron County officials, and a number of local entities and residents of the County have reopened discussion of the rerouting of the GIWW.

The Corps of Engineers agrees that new facts regarding the safety of the current alignment warrants a revisiting of the issue to determine the viability of rerouting

the channel in a direct line from the point where the waterway crosses underneath the causeway to the point where it reaches the Brazos Santiago Pass and the Brownsville Ship Channel. The route in question is the exact one traveled by the tugboat and barges that struck the bridge on September 15, killing eight people. The tugboat captain failed to negotiate the sharp turn after it passed through the Long Island Swing Bridge. This particular turn is one of the most dangerous on the entire waterway.

PROJECT DESCRIPTION

The reconnaissance study allowed the Corps to reopen the examination of the rerouting of the GIWW on the basis of safety. The measure would seek to eliminate safety hazards to Port Isabel and Long Island residents created by barges that move large quantities of fuel and other potentially dangerous explosive chemicals through the existing route under the Queen Isabella Causeway. The overall goal of the study would be to enhance safety and transportation efficiency on this busy Texas waterway by removing the treacherous turn tug and barge operators are forced to make as they navigate the passage through the Long Island Swing Bridge. In addition to the hazardous curve, the winding and congested course taken by the waterway through the City of Port Isabel adds needless distance and time to the transportation of goods to and from Cameron County ports. These costs are borne not only by commercial operators using the waterway, but also by consumers and businesses all across Texas and the Nation. The rerouting would also seek to correct the adverse impact of waterway traffic on Cameron County residents. Apart from the obvious potential for damage to the Queen Isabella Causeway, adverse impacts are created by waterway traffic in the form of traffic delays associated with the Long Island Swing Bridge and the transportation of hazardous materials within several hundred feet of densely populated areas in Port Isabel and Long Island.

Currently, a 1950's era swing bridge that floats in the waterway channel connects Long Island and the City of Port Isabel. As waterborne traffic approaches the bridge, cables are used to swing it from the center of the channel and then swing it back into place. This costly and time-consuming process, which frequently backs up traffic into the downtown business district of Port Isabel, is estimated to drain hundreds of dollars a year from the economy of this economically distressed area. More serious problems are created when the heavily used cables or winch motors on the swing bridge fail, leaving the bridge stuck in an open or closed position. Equipment failures often cause delays for several days and leave Long Island residents cut off from vehicle access or the ports of Port Isabel and Brownsville cut off from in-bound and out-bound barge traffic. During these times, supplies of vital commodities are halted all across the Rio Grande Valley as stocks dwindle and produce and finished goods begin to pile up.

IMPACT OF THE GULF INTRACOASTAL WATERWAY

The Gulf Intracoastal Waterway is an integral part of the inland transportation system of the United States. Stretching across more than 1,300 coastal miles of the Gulf of Mexico, this man-made, shallow-draft canal moves a large variety and great number of vessels and cargoes. The 426 miles of the waterway running through Texas makes it possible to supply both domestic and foreign markets with chemicals, petroleum and other essential goods. Barge traffic is essential to many of the port economies from Texas to Great Lakes ports, indeed, throughout the entire GIWW. Some ports feel their future strategic plans are closely linked to the efficient operation of the GIWW. This is true for ports that rely almost entirely on barge traffic as well as ports that function primarily as recreational facilities. Most of the cargo moved along Texas waterways is petroleum and petroleum products. The GIWW is well suited for the movement of such cargo, and, therefore, has allowed many of the smaller, shallow-draft facilities to engage in both interstate and international trade. Commercial fishing access via the GIWW has had a significant impact on these port economies as well.

CONCLUSION

A 1995 Lyndon Baines Johnson School of Public Affairs report entitled "The Texas Seaport and Inland Waterway System" warned of concern with the safe operation of barges on the GIWW citing, "a serious accident perhaps involving a collision between two barges carrying hazardous materials could force closure of the waterway". No one foresee the terrible accident that occurred on September 15 or the additional one on May 2, 2002. The lives of eight people came to an end and the lives of their loved ones was irrevocably changed forever. This important waterway must be improved to prevent another tragedy.

WHAT WE NEED FROM THE SUBCOMMITTEE IN FISCAL YEAR 2004

The $500,000 that must be added to the fiscal year 2004 appropriations bill will allow the Corps of Engineers to begin to remedy this dangerous situation. Cameron County, the users of the GIWW, and the residents of the area respectfully requests the addition of this much-needed appropriation.

PREPARED STATEMENT OF THE CHAMBERS COUNTY-CEDAR BAYOU NAVIGATION DISTRICT

On behalf of the Chambers County-Cedar Bayou Navigation district and the users of the Cedar Bayou Channel, Texas, we extend gratitude to Chairman Domenici and members of the subcommittee for the opportunity to submit testimony in support of the improvement project for the Cedar Bayou Channel, Texas.

We express full support of the inclusion in the fiscal year 2004 budget for: Pre-Construction Engineering and Design (OEM) For Cedar Bayou, Texas—$100,000.

HISTORY AND BACKGROUND

The River and Harbor Act of 1890 originally authorized navigation improvements to Cedar Bayou. The project was reauthorized in 1930 to provide a 10-foot deep and 100-foot wide channel from the Houston Ship Channel to a point on Cedar Bayou 11 miles above the mouth of the bayou. In 1931, a portion of the channel was constructed from the Houston Ship Channel to a point about 0.8 miles above the mouth of Cedar Bayou, approximately 3.5 miles in length.

A study of the project in 1971 determined that an extension of the channel to project Mile 3 would have a favorable benefit to cost ratio. This portion of the channel was realigned from mile 0.1 to mile 0.8 and extended from mile 0.8 to Mile 3 in 1975. In October 1985, the portion of the original navigation project from project Mile 3 to 11 was deauthorized due to the lack of a local sponsor. In 1989, the Corps of Engineers, Galveston District completed a Reconnaissance Report dated June 1989, which recommended a 12′×125′ channel from the Houston Ship Channel Mile 3 to Cedar Bayou Mile 11 at the State Highway 146 Bridge. The Texas Legislature created the Chambers County-Cedar Bayou Navigation District in 1997 as an entity to improve the navigability of Cedar Bayou. The district was created to accomplish the purpose of Section 59, Article XVI, of the Texas Constitution and has all the rights, powers, privileges and authority applicable to Districts created under Chapters 60, 62, and 63 of the Water Code—Public Entity. The Chambers County-Cedar Bayou Navigation District then became the local sponsor for the Cedar Bayou Channel.

PROJECT DESCRIPTION AND REAUTHORIZATION

Cedar Bayou is a small coastal stream, which originates in Liberty County, Texas, and meanders through the urban area near the eastern portion of the City of Baytown, Texas, before entering Galveston Bay. The bayou forms the boundary between Harris County on the west and Chambers County on the east. The project was authorized in Section 349 of the Water Resources Development Act 2000, which authorized a navigation improvement of 12 feet deep by 125 feet wide from mile 2.5 to mile 11 on Cedar Bayou.

JUSTIFICATION AND INDUSTRY SUPPORT

First and foremost, the channel must be improved for safety. The channel is the home to a busy barge industry. The most cost-efficient and safe method of conveyance is barge transportation. Water transportation offers considerable cost savings compared to other freight modes (rail is nearly twice as costly and truck nearly four times higher). In addition, the movement of cargo by barge is environmentally friendly. Barges have enormous carrying capacity while consuming less energy, due to the fact that a large number of barges can move together in a single tow, controlled by only one power unit. The result takes a significant number of trucks off of Texas highways. The reduction of air emissions by the movement of cargo on barges is a significant factor as communities struggle with compliance with the Clean Air Act. Several navigation-dependent industries and commercial enterprises have been established along the commercially navigable portions of Cedar Bayou. Several industries have docks on at the mile markers that would be affected by this much-needed improvement. These industries include: Reliant Energy, Bayer Corporation, Koppel Steel, CEMEX, US Filter Recovery Services and Dorsett Brothers Concrete, to name a few.

PROJECT COSTS AND BENEFITS

Congress appropriated $100,000 in fiscal year 2001 for the Corps of Engineers to conduct the feasibility study to determine the Federal interest in this improvement project. The study indicated a benefit to cost ratio of the project of 2.8 to 1. The estimated total cost of the project is $16.8 million with a Federal share estimated at $11.9 million and the non-federal sponsor share of approximately $4.9 million. Total annual benefits are estimated to be $4.8 million, with a net benefit of $3 million. Congress appropriated $400,000 each in fiscal year 2002 and fiscal year 2003 to support the feasibility study. This project is environmentally sound and economically justified.

WHAT WE NEED FROM THE SUBCOMMITTEE IN FISCAL YEAR 2004

We would appreciate the subcommittee's support of the required add of the $100,000 appropriation needed by the Corps of Engineers to complete the plans and specifications of the project so that it can move forward at an optimum construction schedule. The users of the channel deserve to have the benefits of a safer, most cost-effective Federal waterway.

PREPARED STATEMENT OF THE CITY OF NEWARK, NEW JERSEY

Chairman Domenici and members of the Subcommittee, thank you for giving the City of Newark the opportunity to submit testimony about a project under your jurisdiction which is very important to the quality of life of the people of Newark, New Jersey and the surrounding region. The Passaic River Streambank Restoration Project, known as the Joseph G. Minish Passaic River Waterfront Park and Historic Area, is an important part of the overall economic, land use and transportation development plan of the City of Newark.

The Joseph G. Minish Park/Passaic Riverfront Historic Area project addresses the restoration and rehabilitation of approximately 9,000 linear feet of Passaic River shoreline. This encompasses the eastern boundary of Newark's Central Business District, as well as the edge of the City's densely populated Ironbound neighborhood. This reach of the Passaic River, from Bridge Street to Brill Street, in the City of Newark is eroded, deteriorated and environmentally degraded due to past heavy commercial and industrial use and flooding. The total project includes bulkheading and other streambank restoration measures, the creation of a 40-foot-wide walkway on top of the bulkhead, and a system of open spaces tying together large public park areas as well as open space required in any private development.

The project was authorized in the Water Resources Development Act (WRDA) of 1990 (Public Law 101–640) as an element of the Passaic River Flood Damage Reduction Project on November 28, 1990, modified in the Water Resources Development Act of 1992 (Public Law 102–580) by extending the project area, and further modified in the Water Resources Development Act of 1996 (Public Law 104–303). The project is divided into three phases. Phase I consists of 6,000 feet of bulkhead replacement (Bridge Street to Jackson Street) and 3,200 feet of wetlands restoration (Jackson Street to Brill Street). The Project Cooperation Agreement for Phase I was executed in May 1999. Plans and specifications for this first phase have been prepared, and it is being implemented in four contracts. Construction of the first bulkhead section at a value of $2,069,910 was completed in September of 2000. A second construction contract to continue Phase I has been contracted at a cost of $4.7 million, and is scheduled for completion in March 2003. The third contract specifications have been prepared, and will be bid as soon as required property remediation is completed by a private owner. The fourth contract includes a naturalized streambank area in the riverfront area adjacent to City and County parkland in a densely populated neighborhood, and could be constructed simultaneously to contract three. The Army Corps of Engineers has committed funds still available to apply toward Phase I elements. The State of New Jersey has been the primary cost-sharing sponsor of Phase I, with significant City investment and support. Some additional funding will be needed for Phase I, according to the U.S. Army Corps of Engineers March 2002 project fact sheet. Prior appropriated funds have been utilized to fully design the bulkhead, a segment of naturalized streambank, and a system of walkways and public open spaces.

City Engineering professionals are coordinating with the Corps to complete all elements of the bulkheading and its integration with significant Combined Sewer Overflow facilities and related Phase I costs. Close coordination has also been continuing with the NJ Department of Transportation, which is rebuilding the section of Route 21 adjacent to Minish Park, and NJ Transit, which has begun construction of the

Minimum Operable Segment of a light rail line, the Newark Elizabeth Rail Link, on the west side of Route 21. Adjacent, previously dormant, sites have become desirable locations for development of commercial properties, due to the projected walkway, park and open space facilities. The Federal Bureau of Investigation has become the tenant in a new office building on the riverfront, and a private developer is planning new housing units on a riverfront site adjacent to Penn Station. The complexity of all of these interrelated projects, as well as the private development of properties in the area, has increased the importance of moving the Minish Park construction at an accelerated pace.

As planned, Phase II will add a 9,200-foot long and 40-foot-wide waterfront walkway on top of and adjacent to the bulkhead, and Phase III adds park facilities, plazas, and landscaping on the inland side of the promenade, between the river and Newark's downtown edge. Future project segments will create linkages to Riverbank Park and other community facilities, including a naturalized streambank and a new Essex County Park. However, a change in the phasing, but not the scope, of the overall project would provide needed open space in one of our Nation's oldest and most densely populated cities.

It is vital to the interests of the City of Newark, its residents, visitors, businesses and investors that construction of the walkway and park between Penn Station and the northern end of the completed bulkhead proceed as soon as possible. This area includes the large park proposed at Center Street and the Riverfront. Construction of this project segment will allow pedestrians safe and convenient access to the riverfront from Newark Penn Station north to the New Jersey Performing Arts Center. The Army Corps has completed preliminary designs, so that the waterfront walkway can built over the two sections of the bulkhead which have been substantially completed, and the park built on adjacent property now owned by the City of Newark and other public entities.

Mandatory site remediation by private owners on property slated for bulkhead construction has become more extensive than originally anticipated. Since design efforts for Phases II and III are underway, as are negotiations for a Project Cooperation Agreement, construction of Phases II and III can take place on completed areas of Phase I. This restoration will provide a new focal point for downtown development activities, reconnect Newark to its riverfront and maritime history, and allow neighborhood residents direct access to the riverfront as part of a much-needed recreation complex.

An appropriation of $14 million for the continuation of construction on the Newark Riverfront Project is requested, so that this integral element in Newark's revitalization can move forward as planned, and can be utilized by the Army Corps of Engineers, in fiscal year 2004. The current funding will only take us through the construction of bulkhead and some of the mud flats restoration, not to a usable facility. An additional appropriation will enable the City, State and Corps to proceed with a Phase II City/Corps cooperative program agreement on the next set of essential Phase II and Phase III elements. This will include the walkway/greenway component above and behind the completed bulkheading, and the critical connective infrastructure that will be needed to insure access and maximum effectiveness and utilization of this project for the community and key stakeholders and project partners.

A supplemental appropriation of $14 million is requested so that this integral element in Newark's revitalization can move from partial construction to the beginning of full project build-out. This investment in Newark's future will help us to improve the economic status of our Nation's third oldest major city. The development of the riverfront now is a critical element in the overall plan for Newark's downtown revitalization. This linear park will serve as a visual and physical linkage among several key and exciting development projects. It is adjacent to one of the oldest highways in the Nation, Route 21, which is undergoing a multi-million dollar realignment and enhancement. A light rail system, the Newark-Elizabeth Rail Link, is under construction. It will connect Newark's two train stations, and ultimately, Newark International Airport and the neighboring City of Elizabeth, providing users with access to mass transportation. Conversely, the riverfront will become a destination served by that system, providing an important open space and waterfront opportunity for residents of one of the most densely populated cities in the Nation.

The environmental benefits of the project include flood control, riverbank and wetlands restoration, creation of urban green space, and enhancement of water quality in the Passaic River. These improvements will allow the Passaic River to be converted from one of the nation's most troubled waterways to a cultural and recreational asset. Ongoing and planned greenway projects will provide pedestrian and

bicycle access to the waterfront from Newark's residential neighborhoods as well as the City's five major institutions of higher learning.

The riverfront development will complement and provide a visual and physical connection with the $170 million New Jersey Performing Arts Center, which opened in the Fall of 1997 and has been incredibly successful. Further north along the riverfront, also accessible from the riverfront walkway when it is fully built, the City of Newark and Essex County have opened Riverfront Stadium, home to a minor league baseball team as well as community sporting events such as the Project Pride Bowl. Also in close pedestrian proximity is the site for the new Newark Sports and Entertainment Arena, which is expected to bring two million visitors a year into the area. In addition, NJ Transit has completed construction of a new concourse, which is directly adjacent to the riverfront. Once the park and walkway are completed, rail and bus passengers will be able to exit the Penn Station north concourse directly onto the riverfront area. On the eastern portion of Minish Park, residents of a crowded community, Newark's Ironbound, will have direct access to the river and its streambank for active and passive recreation for the first time.

The riverfront will be the nexus of these activities, creating a vibrant downtown center that will provide economic development opportunities for the citizens of Newark and our region. Visitors from throughout the Nation are expected to come to visit our revitalized city, and participate in the exciting growth and development taking place. There is tremendous potential for Newark's riverfront to mirror the success of other riverfront developments throughout the country, and Newark stands ready to accept the challenges such developments present.

The City of Newark has completed conducting a master plan study for the entire riverfront area, which will guide us in tying together these incredibly exciting, and challenging, projects. We have received State of New Jersey planning funds to develop a redevelopment plan for the entire site, which will serve to coordinate redevelopment plans with private developers, public agencies, and non-profit partners. Funds have also been made available by the State for a Newark Waterfront Community Access Study, which is examining the optimum way to safely cross Route 21 to enable pedestrians to enjoy the riverfront area. We have a once in a lifetime opportunity to coordinate several major development activities into a virtually seamless development plan. The appropriation of $15 million which Newark requests will serve to incorporate the Army Corps of Engineers' construction into our overall economic development plan to reinvigorate Newark. I urge you to support this appropriation request, and help us to continue Newark's revitalization.

In closing, I would like to extend my thanks to the entire New Jersey delegation for its ongoing support, especially to subcommittee member Rodney Frelinghuysen for his advocacy of Newark's critical projects. The time and attention of this subcommittee are deeply appreciated.

PREPARED STATEMENT OF THE CITY OF MIAMI BEACH, FLORIDA

On behalf of the City of Miami Beach, I appreciate this opportunity to submit for the record testimony in support of the request by Miami-Dade County for beach renourishment funds.

SUPPORT FOR MIAMI-DADE CONSTRUCTION REQUEST

The City of Miami Beach would first like to thank the members of the subcommittee for all their efforts in the past to provide support for the State of Florida's beaches and in particular, those of Miami Beach.

Beaches are Florida's number one tourist "attraction." In 2002, beach tourism generated more than $16 billion for Florida's economy and more tourists visited Miami Beach than visited the three largest national parks combined.

In addition to their vital economic importance, beaches are the front line defense for multi-billion dollar coastal infrastructure during hurricanes and storms. When beaches are allowed to erode away, the likelihood that the Federal Government will be stuck with astronomical storm recovery costs is significantly increased.

The Florida Department of Environmental Protection estimates that at least 276 miles (35 percent) of Florida's 787 miles of sandy beaches are currently at a critical state of erosion. This includes the entire 6 miles of Miami Beach. As a result of the continuing erosion process and more dramatically, recent intense storms which have caused tremendous damage to almost all of the dry beach and sand dune throughout the middle segment of Miami Beach. Three years ago, most of the Middle Beach dune cross-overs were declared safety hazards and closed, as the footings of the boardwalk itself were in immediate jeopardy of being undercut by the encroaching tides. If emergency measures, costing approximately $400,000 had not been taken

by the City, there would have been considerable risk of coastal flooding west of the dune line in residential sections of Miami Beach. As you can see, this example points to the commitment we as a beach community have to our beaches, but Federal assistance remains crucial. While we are thankful of the substantial commitment made by the subcommittee in the fiscal year 2002 Energy and Water Conference Report, there is still much work to be done. Our beaches must be maintained not only to ensure that our residents and coastal properties are afforded the best storm protection possible, but also to ensure that beach tourism, our number one industry, is protected and nurtured.

In 1987, the Army Corps of Engineers and Metropolitan Dade County entered into a 50-year agreement to jointly manage restore and maintain Dade County's sandy beaches. Since then, Metropolitan Dade County has been responsible for coordinating and funding the local share of the cost for the periodic renourishment of our beaches.

In order to ensure that adequate funding will continue to be available, the City of Miami Beach supports and endorses the legislative priorities and appropriation requests of Metropolitan Dade County, as they relate to the restoration and maintenance of Dade County's sandy beaches. Specifically, the City respectfully adds their strong support for the efforts of Miami-Dade County and wholeheartedly supports their fiscal year 2003 request for beach renourishment funds.

Your support would be appreciated, Mr. Chairman. The City of Miami Beach thanks you for the opportunity to present these views for your consideration.

PREPARED STATEMENT OF THE GREEN BROOK FLOOD CONTROL COMMISSION

SUMMARY

The Commission requests that the Congress appropriate $10,000,000 in Construction General Funds for the Project in fiscal year 2004, to continue construction of the Project.

Mr. Chairman and Members of the Subcommittee, my name is Vernon A. Noble, and I am the Chairman of the Green Brook Flood Control Commission. I submit this testimony in support of the Raritan River Basin—Green Brook Sub-Basin project, which we request be budgeted in fiscal year 2004 for $10,000,000 in Construction General funds.

As you know from our previous testimony, a tremendous flood took place in September of 1999. Extremely heavy rainfall occurred, concentrated in the upper part of Raritan River Basin. As a result, the Borough of Bound Brook, New Jersey, located at the confluence of the Green Brook with the Raritan River, suffered catastrophic flooding. Water levels in the Raritan River and the lower Green Brook reached record levels.

There were tremendous monetary damages, and extensive and tragic human suffering.

As we have previously reported to you, a thorough study of the water levels throughout the Bound Brook Borough area in the terrible flood of September, 1999 showed that although the flood water reached record levels, it would have been contained by the extra margin of safety, the "free board", which the Corps. of Engineers has incorporated in the design of this Project.

The flooding of September 1999 is not the first bad flood to have struck this area. Records show that major floods have occurred here as far back as 1903.

Disastrous flooding took place in the Green Brook Basin in the late summer of 1971. That flood caused $304,000,000 in damages (April 1996 price level) and disrupted the lives of thousands of persons.

In the late summer of 1973, another very severe storm struck the area, and again, thousands of persons were displaced from their homes. $482,000,000 damages was done (April 1996 price level) and six persons lost their lives.

As you no doubt know, actual construction of the Project began in late fiscal year 2001. This first construction involved the replacement of an old bridge over the Green Brook which connects East Main Street in the Borough of Bound Brook, Somerset County, New Jersey, with Lincoln Boulevard in the Borough of Middlesex, in Middlesex County, New Jersey. That work is now complete, and the new bridge is in use.

Last year, the New York District of the Corps of Engineers awarded the second construction contract, known as Segment T.

This Segment T contract will complete the construction of protection for the eastern section of the Borough of Bound Brook, New Jersey. The protection consists of levees and associated elements which will connect with the new and higher bridge.

This Segment T also includes a large pumping station being built into the levee, for the purpose of gathering up the internal rain water, and pumping it safely over the levee and in to the Green Brook stream on the other side of the levee.

The next following segment of the Project is planned for construction to begin later this year. This next construction, known as Segment U, will begin the protection for the western portion of Bound Brook Borough.

As that segment gets into construction, the final plans for the remaining segments for the protection of Bound Brook Borough will be translated into construction documents.

It is important to recognize that the Borough of Bound Brook will remain in danger of further catastrophic flooding until the ring of protection for the Borough is completed.

The constructed completed thus far will not provide protection for Bound Brook Borough until the ring is closed around the Borough. It is of the utmost importance that the remaining construction to complete the protection for the people and property of Bound Brook Borough be carried forward with dispatch. With the continued support of the Congress, this work can continue seamlessly during the next few years.

Since the devastating Floyd flood of 1999, the Borough of Bound Brook has been in desperate financial condition. That flood destroyed extensive tax rateables, and the Borough is in a critical situation. The only hope for stabilizing the municipal tax situation is redevelopment projects in Bound Brook. Because of its strategic location, there appear to be significant redevelopment opportunities available for Bound Brook Borough.

However, realization of redevelopment depends upon completion of flood protection on schedule.

Bound Brook Borough needs flood protection sooner, not later.

To accomplish that, the Project requires $10,000,000 in Federal appropriation for fiscal year 2004.

The Green Brook Flood Control Commission was established in 1971, pursuant to an Act of the New Jersey Legislature shortly after the very bad flood of 1971.

The Green Brook Flood Control Commission is made up of appointed representatives from Middlesex, Somerset and Union Counties in New Jersey, and from the 13 municipalities within the Basin. This represents a combined population of about one-quarter of a million people.

The Members of the Commission are all volunteers, and for 32 years have served, without pay, to advance the cause of flood protection for the Basin. Throughout this time, the Corps of Engineers, New York District, has kept us informed of the progress of their work, and a representative from the Corps has been a regular part of our monthly meetings.

We believe that it is clearly essential that the Green Brook Flood Control Project be carried forward, and pursued vigorously, to achieve protection at the earliest possible date. This Project is needed to prevent loss of life and property, as well as the trauma caused every time there is a heavy rain.

New Jersey has programmed budget money for its share of the Project in fiscal year 2004.

We urgently request an appropriation for the Project in fiscal year 2004 of $10,000,000.

The Green Brook Flood Control Commission is dedicated to the proposition that Bound Brook Borough, and the other municipalities, and their thousands of residents, who would otherwise suffer in the next major flood, must be protected. We move forward with continued determination to achieve the protection which the people of the flood area need and deserve.

With your continued support, we are determined to see this Project through to completion.

Thank you, Mr. Chairman, and Members of the subcommittee, for your vitally important past support for the Green Brook Flood Control Project; and we thank you for the opportunity to submit this testimony.

GREEN BROOK FLOOD CONTROL PROJECT FUNDING

Federal Fiscal Year	Federal Administration Budget Request	Congressional Appropriation (Nominal)	Savings and Slippages	Effective Net Appropriation to Corps of Engineers	Transfer by Corps To (−) From (+) Other Projects	Net Money Available for Work on Project (Work Allowance)	Cumulative Money Received by Corps Since Authorization in 1986
1986	$445,000	$445,000	−$19,000	$426,000	.....	$426,000	$426,000
1987	1,370,000	1,370,000	.....	1,370,000	.....	1,370,000	1,796,000
1988	1,400,000	1,400,000	.....	1,400,000	.....	1,400,000	3,196,000
1989	1,500,000	1,500,000	−68,000	1,432,000	.....	1,432,000	4,628,000
1990	1,200,000	1,200,000	−116,000	1,084,000	+$23,000	1,107,000	5,735,000
1991	2,000,000	2,000,000	−496,000	1,504,000	−98,000	1,406,000	7,141,000
1992	2,600,000	3,169,000	−364,000	2,805,000	.....	2,805,000	9,946,000
1993	.....	3,500,000	.....	3,500,000	.....	3,500,000	13,446,000
1994	.....	2,800,000	−594,000	2,206,000	+571,000	2,777,000	16,223,000
1995	2,000,000	2,000,000	.....	2,000,000	+135,000	2,135,000	18,358,000
1996	3,600,000	3,600,000	−932,000	2,668,000	+193,000	2,861,000	21,219,000
1997	2,781,000	2,781,000	−300,000	2,481,000	.....	2,781,000	24,000,000
1998	.....	3,100,000	−189,000	2,911,000	.....	2,911,000	26,911,000
1999	.....	9,900,000	−694,000	9,206,000	−6,500,000	2,706,000	29,617,000
2000	1,000,000	1,000,000	−142,000	858,000	.....	858,000	30,475,000
2001	4,000,000	4,000,000	−640,000	3,360,000	+89,000	3,449,000	33,924,000
2002	10,000,000	10,000,000	−1,598,000	8,402,000	−1,000,000	7,402,000	41,326,000
2003	5,000,000	7,000,000	.....	.....	.....	.....	.....
2004	6,500,000	[1] 10,000,000	.....	.....	.....	.....	.....

[1] Recommendation of the Green Brook Flood Control Commission for Fiscal Year 2004 to Continue Construction

Reference: This summary of funding for the Green Brook Flood Control Project has been assembled based upon publicly available information.

DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

PREPARED STATEMENT OF THE GARRISON DIVERSION CONSERVANCY DISTRICT

Mr. Chairman, Members of the Committee, my name is Dave Koland; I serve as the manager of the Garrison Diversion Conservancy District. The mission of the Garrison Diversion is to provide a reliable, high quality and affordable water supply to the areas of need in North Dakota. Over 77 percent of our State residents live within the boundaries of Garrison Diversion. I would like to comment on the impact that the President's fiscal year 2004 budget request has on the effort to provide reliable, high quality and affordable water supplies to the citizens of North Dakota through the Garrison Diversion Unit.

The President's fiscal year 2004 budget request removed, from the Garrison Diversion Unit budget, funding for one of the most successful government programs in North Dakota. As I read the OMB Program Assessment Rating Tool (PART), dealing with Rural Water Supply Projects, I can only conclude that they had no knowledge of the North Dakota Municipal, Rural and Industrial (MR&I) program.

The MR&I program was started in 1986 after the Garrison Diversion Unit was reformulated from a million-acre irrigation project into a multipurpose project with emphasis on the development and delivery of municipal and rural water supplies. The statewide MR&I program has focused on providing grant funds for water systems that provide water service to unserved areas of the State. The State has followed a policy of developing a network of regional water systems throughout the State. Every rural water system built in North Dakota is still operating. They are providing safe, clean water to their members, reducing their debt, putting money in reserve, complying with every State and Federal regulation, and doing so with a stable, prudent rate structure.

NORTH DAKOTA'S SUCCESS STORY

Rural communities offer the experience and lifestyle many people seek in which to raise their family. People live on farmsteads with a rural water connection, while farmsteads without decent water stand empty. For instance, Sheridan County lost 20.4 percent of its population between 1990 and 2000, yet the rural water system serving that county hardly lost a connection. Good water does make a difference as to where people choose to live.

The key to providing water to small communities and rural areas has been the Grant and Loan program of Rural Development and the MR&I program jointly operated by the Garrison Diversion Conservancy District and the State Water Commission. Without the assistance of these two grant programs, the exodus from the rural areas would have been a stampede.

Rural water systems are being constructed using a unique blend of local expertise, State financing, rural development loans, MR&I grant funds to provide an affordable rate structure, and the expertise of the Bureau of Reclamation to deal with environmental issues. The projects are successful because they are driven by a local need to solve a water quantity or quality problem. The solution to the local problem is devised by the community affected by the problem. Early, local buy-in helps propel the project through the tortuous pre-construction stages.

The MR&I program has been so successful and so important to North Dakota that the North Dakota Legislature loaned the program $15 million to help deal with the severe lag time that developed in the Federal appropriations process.

The desperate need for clean, safe water is evidenced by the willingness of North Dakota's rural residents to pay water rates well above the rates EPA considers affordable. The EPA Economic Guidance Workbook states that rates greater than 1.5 percent of the median household income (MHI) are not only unaffordable, but also "may be unreasonable".

The average monthly cost on a rural water system for 6,000 gallons of water is currently $48.97. The water rates in rural North Dakota would soar to astronomical levels without the 75 percent grant dollars in the MR&I program. For instance, current rates would have to average a truly unaffordable $134.19/month or a whopping 3.8 percent of the MHI. Rates would have ranged as high as $190.80/month or a prohibitive 5.3 percent of MHI without the assistance of the MR&I program.

The people waiting for water in our rural communities are willing to pay far more than what many consider an affordable, or even reasonable, price for clean, safe water.

ENVIRONMENTAL LAWS

The Bureau of Reclamation plays a vital role by ensuring compliance with the National Environmental Policy Act of 1969 (NEPA) and dealing with international issues. Such is the case with the Northwest Area Water Supply Project (NAWS). Canada and the province of Manitoba have filed a lawsuit protesting the thorough Final Environmental Assessment and the subsequent Finding of No Significant Impact on the NAWS project.

One reason for the success of the North Dakota program is the reliance on local control. Decision-making is accomplished at the lowest level possible. The decision on who the system can afford to provide service to and the rate structure is made by a local board of directors composed of members who will be served by the water system. Volunteer involvement and low administrative costs are hallmarks of the program. Local firms that have experience in designing and constructing systems in North Dakota typically provide engineering services.

Across North Dakota, we have seen the impact of providing good water to rural areas and witnessed the dramatic change in small communities. Homes once occupied by aging widows are soon rented or sold to young adults, while houses and farmsteads without rural water stand empty.

Good drinking water is still a dream in many rural North Dakota communities. Turning on the tap each morning brings brown, putrid smelling water instead of clear, fresh water a majority of people enjoy.

The opportunity to impact rural North Dakota is now. If we do nothing, it is easy to predict what will occur in rural North Dakota. We only need to look at counties without good water.

It is in the best interest of North Dakota and the 150+ local communities not yet served by a regional system that we build every piece of rural infrastructure feasible. We must continue to build on what has proven so successful in the past.

Providing a reliable source of good, clean water in rural areas has worked to stabilize the rural economy in North Dakota. The combination of leveraging Rural Development loan funds with MR&I grant dollars has provided a cost efficient, long-term solution to the rural communities in North Dakota.

If we act now, we can make a difference in rural North Dakota. Providing for healthy, vibrant rural communities is good for North Dakota and good for our Nation. We know from past experience that providing good water for rural communities is one sure way of helping people change the future.

The MR&I program in North Dakota should serve as an outstanding example of a successful program that could be implemented in other States.

DISCUSSION OF OVERALL BUREAU OF RECLAMATION BUDGET

It is important to recognize that the fiscal year 2004 budget submission of $771 million for the Bureau of Reclamation's Water and Related Resources program is $45 million more than their request for fiscal year 2003. It is $150 million less than has been called for by the "Invest in the West" Coalition, a coalition of nine western water organizations that are involved in the full array of western water issues.

The "Invest in the West" goal, one with which I agree, is to raise the Bureau's Water and Related Resources Budget to $1 billion by the end of fiscal year 2005. This is simply a goal to restore the budget to previous levels. The erosion of the Bureau's budget during the 1990s has created problems across the west for virtually all of its constituents.

BUDGET IMPACTS ON GARRISON DIVERSION UNIT

At this point, I would like to shift to the particulars of the budget as it impacts the Garrison Diversion program and some specific projects within the State of North Dakota. Let me begin by reviewing the various elements within the current budget request and then discuss the impacts the current level of funding will have on the program.

Attachment 1 shows the funding history over the last 7 years for the Garrison Diversion Unit. The average is approximately $27 million. The President's budget request for fiscal year 2004 is $17.314 million. A continuation of this trend is a formula for disaster. The President's budget request does not even maintain the historic funding level and ignores the needs of the current programs and does not keep up with price increases expected in major programs as delays occur. Fortunately, Congress saw fit to provide that the unexpended authorization ceilings would be indexed annually to adjust for inflation in the construction industry. The proposed allocation to the indexed programs in the President's budget is zero. If a modest 2 percent inflation factor is assumed, the increase will be $8 million for MR&I and

$2 million for the Red River Valley phase. Simply put, with the current request, we will lose ground on the completion of these projects.

This year, the District is asking the Congress to appropriate a total of $61.3 million for the Project. Attachment 2 is a breakdown of the elements in the District's request. To discuss this in more detail, I must first explain that the Garrison Diversion budget consists of several different program items. For ease of discussion, I would like to simplify the breakdown into three major categories. The first I would call the base operations portion of the budget request. Attachment 3 contains a breakdown of the elements in that portion of the budget. This amount is nominally $20 million annually. However, as more Indian MR&I projects are completed, the operation and maintenance costs for these projects will increase and create a need that will need to be addressed.

The second element of the budget is the MR&I portion. This consists of both Indian and non-Indian funding. The Dakota Water Resources Act contains an additional $200 million authorization for each of these programs. For discussion purposes, I have lumped them together and acknowledged that, however each program proceeds, it is our intent that each reaches the conclusion of the funding authorization at approximately the same time. We believe this is only fair.

The MR&I program consists of a number of medium-sized projects that are independent of one another. Project costs generally run around $20 million. Some are, of course, smaller and others somewhat larger. One that is considerably larger is the NAWS Project. The first phase of this project is under construction. The optimum construction schedule for completion of the first phase has been determined to be 5 years. The total cost of the first phase is $66 million. At a 65 percent cost share, the Federal funding needed to support NAWS is $43 million. On the average, the annual funding for the NAWS Project alone is over $8 million. Four other projects have been approved for future funding, and numerous projects on the reservations are ready to begin construction. These requests will all compete with one another. It will be a delicate challenge to balance these projects. Nevertheless, we believe that once a project is started, it needs to be pursued vigorously to completion. If not, we simply run up the cost and increase the risk of incompatibility among the working parts.

An example of the former would be the certain impact of the increased cost of construction over time through inflation, as well as increased engineering and administration costs.

The third element of the budget is the Red River Valley Water Supply Project (RRV) construction phase. The Dakota Water Resources Act authorized $200 million for the construction of facilities to meet the water quality and quantity needs of the Red River Valley communities. It is my belief that the final plans and authorizations, if necessary, should be expected in approximately 5 years. This will create an immediate need for increased construction funding.

This major project, once started, should be pursued vigorously to completion. The reasons are the same as for the NAWS project and relate to good engineering construction management. Although difficult to predict at this time, it is reasonable to plan that the RRV project features, once started, should be completed in approximately 7 years. This creates a need for an additional $25 million. Fortunately, it appears the RRV project start will probably follow the completion of the NAWS first phase.

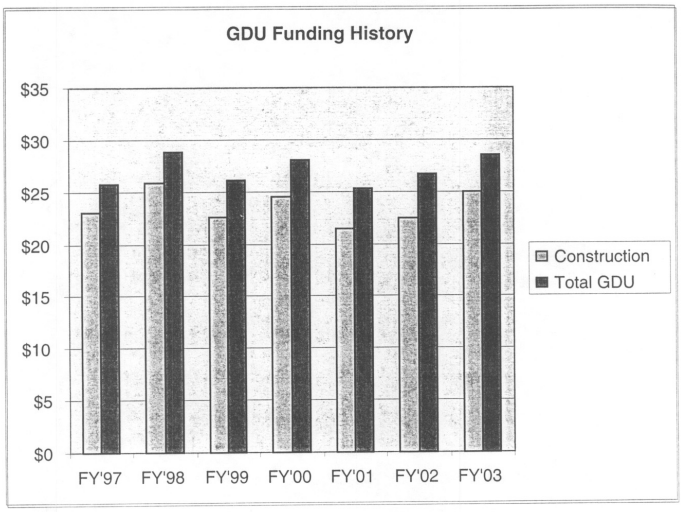
Using these two projects as examples sets up the argument for a steadily increasing budget. First, to accelerate the MR&I program in early years to assure the timely completion of the NAWS project and then to ready the budget for a smaller MR&I allocation when the RRV project construction begins.

Attachment 4 illustrates the level of funding for the two major items, MR&I and RRV. It is quickly apparent that if a straight-line appropriation is used for each, a funding spike will occur in the sixth year. This is when an additional $25 million will suddenly be needed for the RRV program. It is simply good management to blend these needs to avoid drastic hills and valleys in budget requests. By accelerating the construction of NAWS and other projects, which are ready for construction during the early years, some of the pressure will be off when the RRV project construction funding is needed. Over time, a smoother, more efficient construction program will result.

Attachment 5 shows such a program. It begins with a $61.3 million budget this year and gradually builds to over $90 million when the RRV construction could be in full swing (fiscal year 2008). Mr. Chairman, this is why we believe it is important that the budget resolution recognize that a robust increase in the budget allocation is needed for the Bureau of Reclamation. We hope this testimony will serve as, at least, one example of why we fully support the efforts of the "Invest in the West"

campaign to increase the overall allocation by $150 million in fiscal year 2004 and, over time, an increase totaling $1 billion.

The Bureau of Reclamation, Rural Development, Garrison Diversion Conservancy District, State Water Commission and local rural water districts have formed a formidable alliance to deal with the lack of a high quality, reliable water source throughout much of North Dakota. These cost-effective partnerships of local control, statewide guidance and Federal support have combined to provide safe, clean, potable water to hundreds of communities and thousands of homes across North Dakota.



Attachment 1

ATTACHMENT 2.—JUSTIFICATION FOR $61.3 MILLION GDU APPROPRIATION

FISCAL YEAR 2004

Northwest Area Water Supply is under construction after 15 years of study and diplomatic delay. Construction of first phase is estimated to be $66 million.

Designs are based on a 5-year construction period; thus, $12 million is needed for NAWS alone. Indian MR&I programs should be approximately the same.

Ramsey County expansion, Southwest Pipeline, and Williston Water Treatment Plant are under construction.

Red River Valley special studies are underway and need to be accelerated.

[In millions]

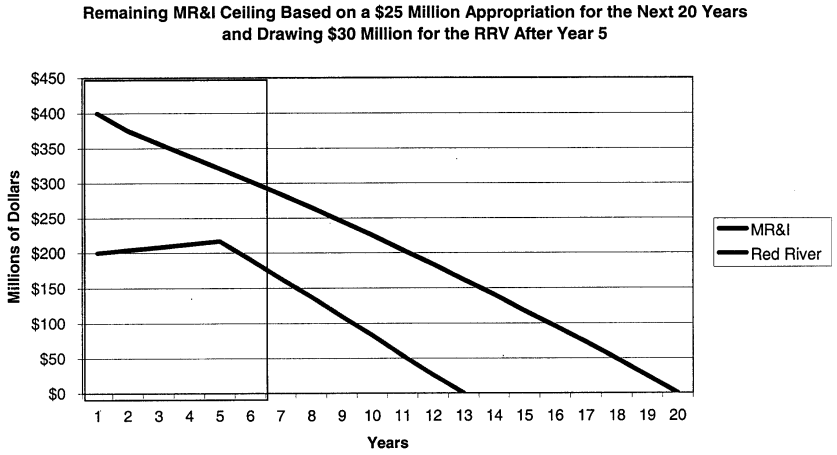
	Amount
OPERATION AND MAINTENANCE OF INDIAN MR&I SYSTEMS PLUS JAMESTOWN DAM	$3.4
BREAKDOWN OF $57.9 MILLION CONSTRUCTION REQUEST:	
Operation and Maintenance of Existing Supply System	4.8
Wildlife Mitigation & Natural Resources Trust	4.4
Red River Valley Special Studies and EIS	1.0
Indian and non-Indian MR&I	39.0
Indian Irrigation	3.2
Recreation	0.5
Under financing 9.5 percent	5.0
Total for Construction	57.9
Grand Total	61.3

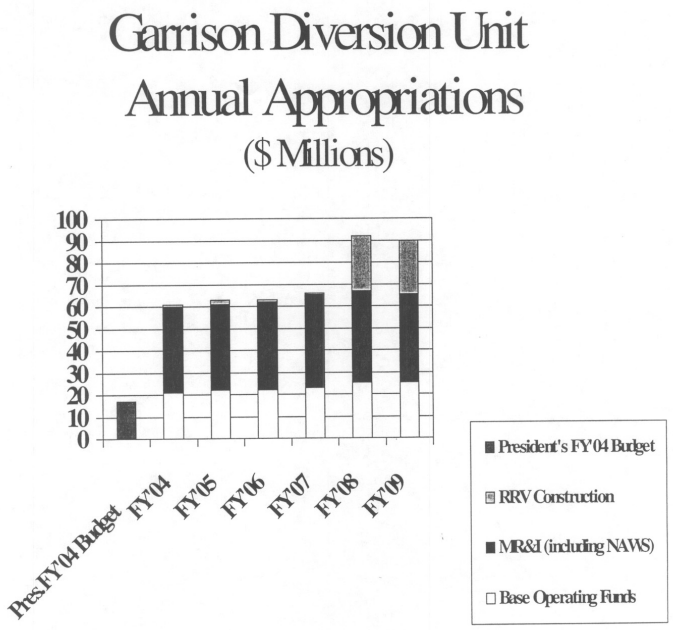
ATTACHMENT 3.—ELEMENTS OF THE BASE OPERATIONS PORTION OF THE GARRISON DIVERSION UNIT BUDGET FISCAL YEAR 2004

[In millions]

	Amount
Operation and Maintenance of Indian MR&I Systems and Jamestown Dam	$3.4
Operation and Maintenance of Existing GDU Facilities	4.8
Funding of Natural Resources Trust and Remaining Wildlife Mitigation Programs	4.4
Indian Irrigation	3.2
Recreation	0.5
Under financing at 9.5 percent	5.0
Total	21.3

ATTACHMENT 4





Attachment 5

LETTER FROM THE NORTH DAKOTA RURAL WATER SYSTEMS ASSOCIATION

Bismarck, North Dakota, March 26, 2003.

GALE NORTON,
U.S. Dept. of Interior, Washington, DC 20240.

DEAR MS. NORTON: The North Dakota rural water community would appreciate your assistance and support to restore rural water funding for the fiscal year 2004 and re-establish a firm rural water supply function of the Bureau of Reclamation (BOR) for 2005 and beyond.

North Dakota has a healthy relationship with the BOR and has worked side-by-side in the development and building of rural water systems. The North Dakota State Water Commission, Garrison Diversion Conservancy District, BOR, and project sponsors have successfully built rural water systems in a team effort throughout North Dakota.

This unique team concept has delivered water through pipeline projects to small communities as well as to rural residents at responsible costs. North Dakota rural residents are willing to pay a reasonable cost-share to complete current projects and begin future projects. The EPA's household affordability ratio states water rates should be 1.5 percent to 2.5 percent of a household's median income to be considered affordable. The attached document provides information documenting household water rate affordability ratios that range from 2.07 percent to 2.31 percent. These percentiles weigh on the high side of what the EPA suggests is affordable.

The Southwest Pipeline Project provides treated drinking water via 2,600 miles of pipeline and serves 23 communities and more than 2,300 rural residents. The Federal cost-share of this project is $7,200 per connection. The life of a water system is estimated at 40 years. $7,200 per connection divided by 40 years equals an investment by the Federal Government of $180 per year per connection. North Dakota has a long list of additional rural water projects that reflect similar economics. Is $180 per year per connection too much for the Federal Government to invest to sustain residents in rural North Dakota, which ranks 4th in the harvesting of our Nation's principal crops?

New Federal drinking water regulations have increased the cost and complexity of the water treatment and distribution process. Increasingly, small communities find that their best and most efficient solution for safe drinking water is to obtain their water supply from a rural water system. Small communities simply cannot afford to comply with the Federal mandates in many situations. In an effort to comply with the Safe Drinking Water Act, communities with populations of less than 500 will have to invest more than $1 million in treatment facilities. Rural water systems provide a dependable supply of treated drinking water to communities and rural residents from centralized treatment facilities resulting in a very cost effective way to treat water.

Drought conditions have plagued the west, southwest, and central areas of North Dakota. Indications are that this drought pattern will continue and is moving east as well. The need for an abundant supply of quality water is serious.

The Dakota Water Resources Act authorized an additional $200 million for state MR&I and $200 million for tribal MR&I projects. North Dakota has started a process of long-range water development planning with many rural water systems in the construction phase. The Dakota Water Resources Act is the basis of our planning. North Dakota has had a healthy relationship with the BOR and is willing to share in the cost of developing and building water systems to sustain our North Dakota heritage.

Respectfully submitted,

STUART CARLSON,
Executive Director.

Ransom-Sargent	Median Household Income (MHI)*	Annual User Cost Share (AUCS), 94,000 gallons**	Household Affordability Ratio (X), (AUCS/MHI) = X percent ***
Ransom	$37,672	$40 Monthly	
Sargent	$37,213	$4.00/1000 gallons	
Average	$37,443	$856	2.29%
North Valley	**Median Household Income (MHI)***	**Annual User Cost Share (AUCS), 94,000 gallons****	**Household Affordability Ratio (X), (AUCS/MHI) = X percent *****
Pembina	$36,430	$26 Monthly	
Cavalier	$31,868	$4.20/1000 gallons	
Average	$34,149	$707	2.07%
South Central	**Median Household Income (MHI)***	**Annual User Cost Share (AUCS), 94,000 gallons****	**Household Affordability Ratio (X), (AUCS/MHI) = X percent *****
Burleigh	$41,309	$30 Monthly	
Kidder	$25,389	$3.40/1000 gallons	
Emmons	$26,119		
Logan	$27,986		
McIntosh	$26,389		
Average	$29,438	$680	2.31%
Southwest Pipeline	**Median Household Income (MHI)***	**Annual User Cost Share (AUCS), 94,000 gallons****	**Household Affordability Ratio (X), (AUCS/MHI) = X percent *****
Mercer	$42,269	$38.25 Monthly, 2000 gallons	
Dunn	$30,015	$3.60/1000 gallons	
Morton	$37,028		
Grant	$23,165		
Adams	$29,079		
Bowman	$31,906		
Slope	$24,667		
Stark	$32,526		
Billings?	$32,667		
Golden Valley?	$29,967		
Average	$31,329	$711	2.27%
North Dakota	$34,604		
United States	$41,994		

* Median Household Income - 2000 United States Census

** According to the US EPA website, Each American household uses an average of 94,000 gallons of water per year

*** Water Utility Financing Study (1980) - Source US EPA website
Household Affordability Ratio should be between 1.5% to 2.5% to be considered affordable and anything >2.5% is considered unaffordable

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PREPARED STATEMENT OF THE OREGON WATER RESOURCES CONGRESS

The Oregon Water Resources Congress (OWRC) was established in 1912 as a trade association to support member needs, to protect water rights and encourage conservation and water management statewide. OWRC represents non-potable agriculture water suppliers in Oregon, primarily irrigation districts, as well as member ports, other special districts and local governments. The association represents the entities that operate water management systems, including water supply reservoirs, canals, pipeline and hydropower production.

BUREAU OF RECLAMATION

For this reason we support an increase of $150 million above the administration's proposed budget request for the Bureau of Reclamation's programs westwide. The administration's current budget proposal is $45 million less than Congress provided in the 2003 omnibus appropriations for Reclamation.

With many western States confronting significant budget deficits, increased emphasis is being placed on targeted Federal aid. Oregon is facing a $2 billion deficit, or about 16 percent of the State's general fund budget. We also support the Western Water Initiative of the Bureau of Reclamation.

OREGON NEEDS

Conservation Implementation

The largest need for funding for OWRC's members is to implement water conservation projects. Irrigation districts in Oregon continue to line and pipe open waterways to enhance both water supply and water quality. But the ability to continue this work depends on some public investment in return for the public benefits. Districts have conserved water and provided some of the saved or conserved water to benefit the fishery instream while also building reservoir supplies. Oregon districts hope to continue this work through enhanced conservation, but to do that the districts need support to implement effective alternative programs such as pilot water banking projects (Klamath Basin and the Deschutes Basin), energy reduction programs, additional measurement and telemetry monitoring, etc.

Rogue River Basin

Medford Irrigation District

Rogue River Valley Irrigation District

Talent Irrigation District

Grants Pass Irrigation District

Three contiguous districts in the Rogue Project (Medford, Rogue River and Talent irrigation districts) are requesting $1 million to fund the Bear Creek and Little Butte Optimization Study by the Bureau of Reclamation. That study will propose a plan to conserve water throughout the basin by lining and piping canals within the districts, considering the potential for raising Howard Prairie Dam and the feasibility of other conservation options.

The Grants Pass Irrigation District (GPID) continues to address conservation and the eventual outcome of the Savage Rapids Dam. In the 2004 budget, $3,700,000 is requested for the Rogue River Water Conservation Project of the Grants Pass Irrigation District as part of the Department of Agriculture budget for the Natural Resources Conservation Service, or the Western Water Initiative or other applicable programs. If that amount is not fully funded, any unfounded amount would be requested as part of an ongoing multiyear request. This amount is not included in the administration's requested budget. The request is supported by the Governor's office, as well as conservation and recreation interests. The district will provide matching funds.

The GPID funding will be used to install piping or lining in 68.4 miles of existing open ditches and canals to reduce water seepage losses. These actions will eliminate 53 percent of seepage and reduce the District's diversion from the Rogue River by approximately 8,300 acre feet of water annually.

Deschutes Basin

Tumalo Irrigation District

Deschutes Resource Conservancy

Ochoco Irrigation District

The Tumalo Irrigation District has been piping canals and replacing other water management structures to achieve conservation measures districtwide. Public Law 106–496 authorized $2.5 million for the current portion of the work to be accomplished. The district requests $882,500 as the final portion of the authorized funds.

In the 2002 budget Congress appropriated $300,000 but the Bureau of Reclamation reduced the amount to $275,000. In the 2003 budget Congress appropriated $1,300,000 but Reclamation reduced that amount to $750,000. As this work is already in the engineering and construction process, the shortfall is delaying the project and the $882,500 is needed to complete the conservation package.

The Ochoco Irrigation District (Prineville, Oregon) has worked with the Bureau of Reclamation, along with the North Unit Irrigation District (Madras, Oregon) for the better part of a decade to determine the use of unallocated water in the district's reservoir. Approximately $200,000 in additional dollars is required to finish the project. Reclamation earlier invested $500,000 in the process, which has not been completed.

The Deschutes Resource Conservancy has requested $2 million for fiscal year 2004. The DRC is a non-profit corporation authorized by Congress to receive technical assistance and financial support from Federal agencies to support conservation and restoration in the Deschutes Basin of Central Oregon, founded by 7 irrigation districts, the Warm Springs Confederated Tribe, and others to maximize collaborative efforts in the basin. Since 1998, the DRC has granted irrigation districts and their water users almost $1 million in funding for piping and water conservation work. The current request includes partial funding of a pilot water banking project to enhance the 8,000 acre feet of leased water developed in 2001 and 2002. Expectations for storage enhancement in 2003 exceed earlier program results.

From the funding request, in addition to the water bank, the DRC hopes to fund pilot water management projects within the districts for $550,000, providing telemetry and monitoring devices, restoring private lands on tributaries in the Ochoco district, providing tailwater management to enhance water quality in other districts, and evaluating the feasibility of generating hydropower within irrigation pipelines.

Umatilla/Columbia Basins

Stanfield Irrigation District

Westland Irrigation District

Hermiston Irrigation District

West Extension Irrigation District

The Umatilla districts draw their water supply from the Umatilla and Columbia Rivers. The districts are in the process of completing boundary changes and seeking supplemental contracts as part of the conclusion of the boundary process. This process has been on going for a decade. The districts are not proposing new legislation or funding but appreciate legislative oversight to get this project completed. If the Bureau of Reclamation cannot accommodate these needs within its existing budget, then additional funding should be provided to expedite the conclusion of this long on-going need.

Eastern Basins

Burnt, Malheur, Owyhee and Powder River Basins Water Optimization Study

The irrigation districts in these basins continue to seek support for this optimization study to seek alternatives for more effective water management through conservation projects and enhancement of water supply. This project has been identified by the Bureau of Reclamation as a regional need.

Klamath Basin

The Klamath Project districts continue to require support of their Water Bank proposal, fishscreen funding and other projects within Reclamation's budget for the Mid-Pacific Division.

In addition to those needs, the Enterprise Irrigation District in the Klamath Basin has specific needs for funding two small projects totaling a Federal request of $98,179. To eliminate water losses and improve water management and control, the district requires $64,916 for a repair and enhancement of a particular lateral in its system. The district will be providing its portion of the cost share in addition to that amount. Another portion of the system can be repaired and upgraded by provision of $33,263. The district will provide additional cost share funds.

Thank you for the opportunity to provide testimony regarding the 2004 Federal budget. While we support existing proposals, we feel that given the record-setting droughts we have suffered in the past few years and in anticipation of another drought this year, we need to support an increased budget to stabilize the Nation's water supply for the many needs it must meet. Providing a stable water supply feeds the economy locally and at the national level.

PREPARED STATEMENT OF THE NATIONAL URBAN AGRICULTURE COUNCIL

Mr. Chairman, Members of the subcommittee, I am Roger Waters, President of the National Urban Agriculture Council (NUAC). NUAC is a national nonprofit organization established as a center for the promotion and implementation of effective water management in the urban landscape.

NUAC's objective is to enhance the environment by increasing education, training, and research on the use of recycled water and water conservation techniques that produce healthier and more vigorous landscapes while conserving potable water supplies. NUAC is headquartered in Washington, DC. NUAC is a service and product

oriented council that is involved with quality research, technology development, training, community outreach, and program and policy development. Additionally, NUAC partners with our members and State and Federal agencies to address the related issues of water availability, drought preparedness and water management policy.

I would like to offer testimony on six Bureau of Reclamation programs: Drought Emergency Assistance; Efficiency Incentives, Water Management and Conservation, Technical Assistance to States, Soil and Moisture Conservation, and the Title XVI—Water Reclamation and Reuse.

I would like to request that the subcommittee support efforts to increase the overall Water and Related Resources budget of the Bureau of Reclamation by $150 million above the administration's request in fiscal year 2004. NUAC is part of the Western Water Industry's "Invest In the West" campaign that aims to substantially increase the Bureau's Water and Related Resources Budget to $1 billion by fiscal year 2005 to meet critical water supply improvements throughout the western United States. NUAC is proud to be a part of the important campaign on this issue that includes the Western Coalition of Arid States, the WateReuse Association, the Family Farm Alliance, the National Water Resources Association, the Association of California Water Agencies, the Oregon Water Resources Congress, the Upper Missouri Water Association and the Idaho Water Users Association.

DROUGHT EMERGENCY ASSISTANCE

NUAC was an active participant in the Interim National Drought Policy Commission's efforts that produced a report and plan for moving forward on recommendations for a national drought policy for our country. Part of NUAC's core mission is to serve as a center for the acceptance, promotion, and implementation of practical, science-based water resource management and conservation measures. An important element of our mission is making sure water users are prepared for the eventuality of drought. We have been supportive of the efforts of the Commission to produce such a vision as part of their recommendations in the final report.

Federal response to drought planning has great impact on the economic strength of our Nation. The USDA in the Global Climate Change Prevention Act of 1990 underscored the need to address drought related information and to "coordinate research and share expertise with other Federal agencies working on issues related to global change". NUAC believes that other Federal agencies require similar funding to meet research objectives and prepare for the challenges of drought planning. Droughts drastically impact the availability of water resources for all purposes. The Agricultural Research Service has identified the drought of 1988 as the most costly natural disaster in U.S. history with economic losses estimated at more than $39 billion.

The Bureau of Reclamation requested $1,120,000 for fiscal year 2004. NUAC believes and would ask that Congress consider, that given the ongoing and likely future potential for droughts throughout our country, a budget of $10 million be included in this program for fiscal year 2004. The Bureau of Reclamation and the Department of Agriculture appear to be the agencies best suited to working with State and local governments, tribes and local water users on the issue of drought. Through active planning these agencies future will save the Federal Government from the more costly future expense of emergency bailouts to recuperate from the devastation of drought. Funding commensurate with the responsibilities of drought planning needs to be provided to the Bureau in order for the agency to meet its objectives.

EFFICIENCY INCENTIVES PROGRAM

NUAC is supportive of this program that provides a partnership among the Bureau of Reclamation, water users and States to implement water use efficiency and conservation solutions that are tailored to local conditions. The Bureau of Reclamation requested only $3,265,000 for the program for fiscal year 2004. We would like to see the program increased up to $5,000,000 so that a greater amount of work can take place among water districts throughout the west for the necessary planning, assistance, training and development of water conservation plans and water efficient landscapes. The need for this training was a key impetus upon which NUAC was founded. Water resource managers and policy makers are increasingly challenged by management issues. Paramount to making good management decisions is the availability of sound scientifically based information. This information is the keystone to the development of practical and environmentally sound programs that are cost effective and socially responsible.

WATER MANAGEMENT AND CONSERVATION PROGRAM

On the surface this program appears to be a duplication of other Bureau of Reclamation assistance programs. The Bureau of Reclamation requested $6,639,000 for this program for fiscal year 2004. A question that has arisen is whether the Bureau of Reclamation has construction authority for funds provided to districts under the program. This is an issue we would like the Committee to clear up so projects could go forward. We believe the funding requested is less than adequate and would suggest it be increased to $10 million. However, if construction is going to occur under this program, we would suggest a cap on the size of the project receiving such funding, so it does not become a program for the few and not the many.

TECHNICAL ASSISTANCE TO THE STATES

NUAC is concerned with how this program has been cut by Congress over the past several years. We believe the data collection and analyses for management of water and related land resources that occurs with this funding is extremely important in the absence of a national water policy. We would ask that the request of $1,908,000 not be cut. We would further request that funding be increased to $3 million to help make up the shortfall that has occurred from previous cuts.

SOIL MOISTURE AND CONSERVATION

The modest amount of the Bureau of Reclamation's request, $267,000 makes this program appear unimportant. NUAC would like to see this increased by a modest amount to $500,000 with the caveat that this increase be tied to assisting in implementing the recommendations of the final National Drought Policy Commission Report. We believe this program should be examined to see if it can assist in the proper site management of Federally funded structures that require water for urban landscapes and horticultural purposes.

TITLE XVI—WATER RECLAMATION AND REUSE

NUAC is supportive of the funding that has been provided for the ongoing projects authorized by the Title XVI Program. The $12,680,000 budget request is substantially below the $36 million provided by Congress for fiscal year 2002 and we would request that you consider increasing the funding at least up to that level this year. The funding provided for research, new starts, and feasibility studies needs to be examined from the standpoint of how long it is going to take to fund the existing projects, instead of looking to increase the number of projects. We believe there is a need for a serious discussion among water policy leaders on the methods to fund the future of this program in a timely manner. With regard to research, we see this as an area for the private and public sector to move forward on their own. It is important that discussions continue on how and for what type of research needs to take place and the role Reclamation should play in that agenda. We believe the results of those discussions would be beneficial in terms of laying the groundwork for any future legislative changes to the program and NUAC looks forward to continuing to be a part of that effort.

WESTERN WATER INITIATIVE

We note with some interest the new Western Water Initiative that is proposed for fiscal year 2004 for $11 million. The Budget documents do not give a lot of detail in terms of how this initiative is going to actually work. We believe it is important for the Bureau to report on an annual basis what they have done with the money, who has received the funding and the expected results from the funding that is provided. We believe it is important to put additional funding into water management and conservation, as well as the science and technology program.

An issue that we have with the Initiative is that it was developed without any input from the stakeholders in the Reclamation program. We spent considerable time and resources being involved in the Strategic Plan development of the Bureau and the Department of the Interior. This Initiative is being proposed and a direction being set that could have been more fully developed and targeted if an opportunity had been provided for such involvement. It raises the question of why this funding was not directly incorporated into the existing program and how it will be integrated into those programs' missions.

Thank you for the opportunity to provide testimony for the record on these programs.

PREPARED STATEMENT OF THE CENTRAL ARIZONA WATER CONSERVATION DISTRICT (CAWCD)

Mr. Chairman, the Central Arizona Water Conservation District (CAWCD) is pleased to offer the following testimony regarding the fiscal year 2004 Energy and Water Development Appropriations Bill.

The Central Arizona Project or "CAP" was authorized by the 90th Congress of the United States under the Colorado River Basin Project Act of 1968. The CAP is a multi-purpose water resource development project designed to deliver the remainder of Arizona's entitlement of Colorado River water into the central and southern portions of the State for municipal and industrial, agricultural, and Indian uses. The Bureau of Reclamation (Reclamation) initiated project construction in 1973, and the first water was delivered in 1985. The CAP is now delivering its full normal year entitlement of 1.5 million acre-feet and Arizona is utilizing its full Colorado River apportionment of 2.8 million acre-feet.

CAWCD was created in 1971 to contract with the United States to repay the reimbursable construction costs of the CAP that are properly allocable to CAWCD, primarily non-Indian water supply and commercial power costs. CAWCD also operates and maintains the project. Its service area is comprised of Maricopa, Pima, and Pinal counties. CAWCD is a tax-levying public improvement district, a political subdivision, and a municipal corporation governed by a 15-member Board of Directors elected from the three counties it serves. CAWCD's Board members are public officers who serve without pay and represent roughly 80 percent of the water users and taxpayers of the State of Arizona.

Project repayment is provided for through a 1988 Master Repayment Contract between CAWCD and the United States. Project repayment began in 1994 for Stage 1 and in 1997 for Stage 2. To date, CAWCD has repaid $685 million of CAP construction costs to the United States.

In 2000, CAWCD and Reclamation successfully negotiated a settlement of the dispute regarding the amount of CAWCD's repayment obligation for CAP construction costs. This dispute has been the subject of ongoing litigation in United States District Court in Arizona since 1995. The settlement provides a 3-year timeframe, ending in May 2003, in which to complete several other activities that are necessary for the settlement to become final, including a final Indian water rights settlement for the Gila River Indian Community. In 2002, when it became apparent that these activities would not be completed by the May 2003 deadline, CAWCD initiated discussions with representatives of the Department of the Interior to extend the terms of the repayment stipulation. The Department of the Interior has now agreed to extend the terms of the repayment stipulation to May 2012 which should allow the United States sufficient time to complete the necessary activities.

CENTRAL ARIZONA PROJECT

CAP construction activities are not yet complete. In its fiscal year 2004 budget request, Reclamation seeks $34,087,000 for the CAP.

CAP Indian Distribution Systems.—$23,048,000 is requested for the construction of Indian distribution systems. CAWCD continues to support appropriations necessary to ensure timely completion of all CAP Indian distribution systems. Most of the CAP non-Indian distribution systems were completed over 10 years ago; however, many of the Indian systems remain incomplete. CAWCD supports full funding for this important program.

CAP Biological Opinion Costs.—$6,787,000 is earmarked to fund activities associated with implementation of a 1994 biological opinion of the U.S. Fish and Wildlife Service (FWS) pertaining to delivery of CAP water to the Gila River Basin and for native fish activities on the Santa Cruz River. Historically, CAWCD has objected to Reclamation's continued spending in these areas. Both environmental groups and CAWCD challenged the 1994 biological opinion in court. However, given its settlement with the United States over CAP costs, and a final judgment in the litigation concerning the 1994 biological opinion, CAWCD supports Reclamation's budget request to allow it to complete Endangered Species Act compliance for CAP deliveries in the Gila River basin.

Environmental Activities at New Waddell Dam.—Reclamation is again requesting funds ($115,000) to complete a reservoir limnology follow-up study at Lake Pleasant, continue Fish and Wildlife Coordination Act activities, and support non-contract costs (Reclamation staff costs). According to Reclamation, this is the last environmental impact statement commitment for New Waddell Dam. Reclamation has carried this funding request in its budget justification documents for the past 5 years with no apparent progress toward its completion. CAWCD would urge Reclamation

to expedite the completion of this study and close out its environmental program at New Waddell Dam.

Environmental Activities at Modified Roosevelt Dam.—Reclamation is again requesting funds ($2,027,000) to complete environmental activities at Modified Roosevelt Dam. This includes Endangered Species Act compliance for the southwestern willow flycatcher and support for Reclamation's non-contract costs. As is the case with New Waddell Dam, these activities have been ongoing for at least 5 years with no apparent end in sight. While CAWCD supports Reclamation's activities to comply with the Endangered Species Act at Modified Roosevelt Dam, CAWCD would also urge Reclamation to expedite the completion of these activities and close out its environmental program at Modified Roosevelt Dam.

Tucson Reliability Division.—Reclamation is requesting $390,000 to continue coordination and design elements for the water supply reliability features of the Tucson Reliability Division, also known as Tucson Terminal Storage. The budget justification documents indicate that these funds will be used to complete the planning report, environmental impact statement, and designs for the reservoir. CAWCD is not aware of any Reclamation decisions to actually construct reliability features in the Tucson area. The repayment stipulation requires that, prior to construction of any such feature, CAWCD must be consulted regarding the development of these features and the associated repayment obligation. While CAWCD supports the continuation of planning efforts to identify acceptable reliability features for the Tucson area, we expect to be consulted as planning activities proceed.

Recreational Trails.—CAWCD notes that Reclamation is requesting $702,000 for the development of recreational trails along portions of the Hayden Rhodes Aqueduct in Phoenix and Scottsdale. An additional $600,000 is requested for the development of recreational trails along portions of the Tucson Aqueduct in Pima County. $439,000 is identified to support Reclamation's non-contract costs associated with various land management activities throughout the CAP service area. CAWCD continues to experience significant land management conflicts at the CAP interface with private property owners. These conflicts might be remedied through the development of an appropriate trails system. CAWCD strongly supports Reclamation's activities in this area.

LOWER COLORADO RIVER OPERATIONS—MSCP

In its fiscal year 2004 budget request, Reclamation also seeks $13,822,000 for its Lower Colorado River Operations Program. This program is necessary for Reclamation to continue its activities as the "water master" on the lower Colorado River. In addition, this program provides Reclamation's share of funding to complete the Lower Colorado River Multi-Species Conservation Program (MSCP). Of the $13,822,000 sought, $2,769,000 is for administration of the Colorado River, $1,821,000 is for water contract administration and decree accounting, and $7,748,000 is for fish and wildlife management and development. The fish and wildlife management and development program includes $5,094,000 for the MSCP; an additional $4,000,000 will be contributed by non-Federal entities.

CAWCD supports Reclamation's budget request for the Lower Colorado River Operations Program. The increased funding level is necessary to support the MSCP effort as well as environmental measures necessary to fully implement the interim surplus criteria for the lower Colorado River. Once reinstated, the interim surplus guidelines would allow the Secretary of the Interior to declare limited Colorado River surpluses through 2016 to assist California in gradually reducing its use of Colorado River to its annual apportionment of 4.4 million acre-feet. These are both critical programs upon which Lower Colorado River water and power users depend.

The MSCP is a cost-shared program among Federal and non-Federal interests to develop a long-term plan to conserve endangered species and their habitat along the Lower Colorado River from Lake Mead to Mexico. CAWCD is one of the cost-sharing partners. Development of this program will conserve hundreds of threatened and endangered species and, at the same time, allow current water and power operation to continue. CAWCD strongly supports Reclamation's budget request for development and implementation of the MSCP.

COLORADO RIVER BASIN SALINITY CONTROL PROJECT—TITLE I

In its fiscal year 2004 budget request, Reclamation is requesting $11,250,000 under the Colorado River Basin Salinity Control Project—Title I. This program supports the operation of the Yuma Desalting Plant (YDP), maintaining the U.S. Bypass Drain and the Mexico Bypass Drain, and ensuring that Mexican Treaty salinity requirements are met. Currently, Reclamation is not operating the YDP. Instead, Reclamation is allowing all Wellton-Mohawk drainage water (over 100,000 acre-feet

per year) to bypass the YDP and flow to the Santa Clara Slough in Mexico. These flows are in excess of Mexican Treaty requirements and represent a significant depletion of the Colorado River water currently in storage. Continuing this practice will eventually reduce the amount of water available to the Central Arizona Project, the lowest priority water user in the Colorado River basin, and increase the risk of future shortages for CAP water users. The Colorado River system is now in its fourth consecutive year of below normal runoff, and water levels in Lake Powell and Lake Mead are at their lowest levels in 30 years. In fact, water year 2002 was the lowest runoff year in recorded history on the Colorado River. Reclamation's operation of the YDP would conserve an additional 100,000 to 120,000 acre feet per year of Colorado River water for use by the lower basin States. This amount is roughly equal to the City of Phoenix's full annual entitlement to CAP water.

Reclamation acknowledges that the House of Representatives Report accompanying the fiscal year 1995 Energy and Water Development Appropriations bill directed Reclamation to maintain the YDP in such a manner as to be capable of operating at one-third capacity with a 1-year notice of funding. While the Plant was operated at one-third capacity for a few months in 1992, it has not been operational at any time since that test operation. Even though Congress has annually appropriated several million dollars for Reclamation to maintain and rehabilitate the YDP, Reclamation now states in a draft report recently provided to CAWCD and other interested parties that it would require $11 million for specific rehabilitation and modernization costs and 24 to 30 months to bring the YDP to operational readiness at one-third capacity. An additional $15 million and an additional 12 to 24 months would be needed to make the Plant fully operational. We request that Reclamation be directed to bring the Plant to a state of readiness as soon as possible. We believe that Reclamation can achieve one-third operational capacity in 24 months within the funding limits currently requested if it directs those monies toward that goal.

The $11,225,000 fiscal year 2004 budget request contains several activities that could and should be stopped and those expenditures directed toward making the plant operational using up-to-date technology that will enhance both plant capacity and efficiency as well as reduce operating cost:

—$751,000 of the request is listed as Water and Energy Management and Development. It is further described as technology research for lower cost operation of the YDP. All of this amount could be dedicated to making the plant operational.

—$1,773,000 is listed as Facility Operations. While much of these activities are directed toward Title I features other than the YDP, part of the expenditures are for Pilot system operation and research and testing of the Water Quality Improvement Center. Some of these expenditures could be redirected to making the plant operations.

—$5,524,000 is listed as Facilities Maintenance and Rehabilitation and is further described as "continuous efforts to ensure the YDP can operate for treaty and other Federal requirements." Based on the activities described, essentially all of these dollars could and should be directed to making the YDP operational.

—$3,242,000 is described as being needed to continue a long term program to bank water, to continue design deficiency corrections, and to continue the YDP permitting and environmental compliance process. There is no ongoing program to bank water. Any water banking program would involve the Interstate Water Banking program in Arizona. No such program is planned in Arizona for YDP purposes. The other two activities in this category already contribute to making the YDP operational; therefore, all of these funds could and should be directed toward making the plant operational.

A Reclamation analysis of Title I expenditure in 2001 indicates less than $2,500,000 was spent for maintenance of facilities or activities other than the YDP. That information and the analysis of the $11,250,000 fiscal year 2004 funding requests demonstrates that Reclamation could direct at least $8,000,000 of its fiscal year 2004 funding request toward making the YDP operational.

CAWCD welcomes this opportunity to share its views with the Committee, and would be pleased to respond to any questions or observations occasioned by this written testimony.

LETTER FROM THE TUMALO IRRIGATION DISTRICT

MARCH 28, 2003.

Honorable PETE V. DOMENICI,
Chair, Committee on Appropriations, Subcommittee on Energy and Water, SD–156 Dirksen Senate Office Building, Washington, DC 20510.

DEAR CHAIRMAN DOMENICI: The Tumalo Irrigation District (TID) in Bend, Oregon respectfully requests your support for inclusion of $882,000 in the fiscal year 2004 Energy and Water appropriations bill for the District's Bend Feed Canal Project. The 106th Congress authorized the U.S. Bureau of Reclamation to participate in the further construction associated with the project in the amount of $2.5 million. This amount would complete the Bureau's share of the project construction funding.

The TID is proposing to continue and complete in this next fiscal year construction to pipe a critical portion of our open canals, essentially eliminating water loss and enhancing public safety along the project's approximate 14,500 foot length. The conserved water would be used to deliver enhanced water to the TID irrigators even in drought years, as they currently receive inadequate water in 8 of 10 years. It will also increase stream flows in Tumalo Creek and the Deschutes River.

The TID Board of Directors has expressed its willingness to pay their share of the estimated $5 million project cost of this important project and have provided all of their share. We are concerned that no funding for the project was requested by the administration in their Fiscal Year 2004 Budget for the Bureau of Reclamation. Our request for $882,000 for fiscal year 2004 would allow us to complete the project in this next fiscal year which would benefit both the District and the general public. We appreciate the previous funding that we have received for work in this area and look forward to your favorable consideration of our request.

Sincerely,

ELMER MCDANIELS,
Manager.

PREPARED STATEMENT OF THE COLORADO RIVER BASIN SALINITY CONTROL FORUM

BUREAU OF RECLAMATION—FISCAL YEAR 2004 APPROPRIATION

Colorado River Basin Salinity Control Forum's Recommendation:
—Title II Program Authorized in 1995 (Public Law 104–20)—$17,500,000.
—General Investigation Funds—Adequate Funding.
—Operation and Maintenance—Adequate Funding.

This testimony is in support of funding for the Title II Colorado River Basin salinity control program. Congress has designated the Department of the Interior, Bureau of Reclamation (Reclamation), to be the lead agency for salinity control in the Colorado River Basin. This role and the authorized program were refined and confirmed by the Congress when Public Law 104–20 was enacted. A total of $17,500,000 is requested for fiscal year 2004 to implement the needed and authorized program. Failure to appropriate these funds will result in significant economic damage in the United States and Mexico.

The President's request for funding for fiscal year 2004 is $9,198,000 for this program. Studies have shown that implementation of the program has fallen behind the needed pace to control salinity concentrations. In previous years, the President has supported, and Congress has funded, a program at about $12 million. In recent years, the President's requests have dropped and this year's request, in the judgement of the Forum, is inappropriately low. Water quality commitments to downstream U.S. and Mexican water users must be honored while the Basin States continue to develop their Compact apportioned waters of the Colorado River. Concentrations of salts in the river cause hundreds of millions of dollars in damage in the United States and result in poorer quality water being delivered by the United States to Mexico. For every 30 mg/l increase in salinity concentrations, there is $75 million in additional damages in the United States. The Forum, therefore, believes implementation of the program needs to be accelerated to a level beyond that requested by the President.

The program authorized by the Congress in 1995 has proven to be very successful and very cost effective. Proposals from the public and private sector to implement salinity control strategies have far exceeded the available funding and Reclamation has a backlog of proposals. Reclamation continues to select the best and most cost-effective proposals. Funds are available for the Colorado River Basin States' cost sharing for the level of Federal funding requested by the Forum. Water quality improvements accomplished under Title II of the Colorado River Basin Salinity Control

Act also benefit the quality of water delivered to Mexico. Although the United States has always met the commitments of the International Boundary & Water Commission's (Commission) Minute 242 to Mexico with respect to water quality, the United States Section of the Commission is currently addressing Mexico's request for better water quality at the International Boundary.

Some of the most cost effective salinity control opportunities occur when the USBR can improve irrigation delivery systems at the same time that the USDA's program is working with landowners (irrigators) to improve the on-farm irrigation systems. Through the newly authorized USDA EQIP program, adequate on-farm funds appear to be available and adequate USBR funds are needed to maximize the effectiveness of the effort.

OVERVIEW

In 2000, Congress reviewed the program as authorized in 1995. Following hearings, and with administration support, the Congress passed legislation that increased the ceiling authorized by this program by $100 million. Reclamation has received cost-effective proposals to move the program ahead and the Basin States have funds available to cost-share up-front.

The Colorado River Basin Salinity Control Program was authorized by Congress in 1974. The Title I portion of the Colorado River Basin Salinity Control Act responded to commitments that the United States made, through Minute 242, to Mexico concerning the quality of water being delivered to Mexico below Imperial Dam. Title II of the Act established a program to respond to salinity control needs of Colorado River water users in the United States and to comply with the mandates of the then newly legislated Clean Water Act. Initially, the Secretary of the Interior and Reclamation were given the lead Federal role by the Congress. This testimony is in support of adequate funding for the Title II program.

After a decade of investigative and implementation efforts, the Basin States concluded that the Salinity Control Act needed to be amended. Congress revised the Act in 1984. That revision, while leaving implementation of the salinity control policy with the Secretary of the Interior, also gave new salinity control responsibilities to the Department of Agriculture, and to the Bureau of Land Management. Congress has charged the administration with implementing the most cost-effective program practicable (measured in dollars per ton of salt removed). The Basin States are strongly supportive of that concept as the Basin States cost share 30 percent of Federal expenditures up-front for the salinity control program, in addition to proceeding to implement their own salinity control efforts in the Colorado River Basin.

The Colorado River Basin Salinity Control Forum (Forum) is composed of gubernatorial appointees from Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. The Forum has become the 7-State coordinating body for interfacing with Federal agencies and Congress to support the implementation of the program necessary to control the salinity of the river system. In close cooperation with the Environmental Protection Agency (EPA) and under requirements of the Clean Water Act, every 3 years the Forum prepares a formal report analyzing the salinity of the Colorado River, anticipated future salinity, and the program necessary to keep the salinities under control.

In setting water quality standards for the Colorado River system, the salinity levels measured at Imperial, and below Parker, and Hoover Dams in 1972 have been identified as the numeric criteria. The plan necessary for controlling salinity and to reduce downstream damages has been captioned the "plan of implementation." The 2002 Review of water quality standards includes an updated plan of implementation. The level of appropriation requested in this testimony is in keeping with the agreed upon plan. If adequate funds are not appropriated, State and Federal agencies involved are in agreement that damage from the higher salt levels in the water will be more widespread in the United States as well as Mexico and will be very significant.

JUSTIFICATION

The $17,500,000 requested by the Forum on behalf of the seven Colorado River Basin States is the level of funding necessary to proceed with Reclamation's portion of the plan of implementation. In July of 1995, Congress amended the Colorado River Basin Salinity Control Act. The amended Act gives Reclamation new latitude and flexibility in seeking the most cost-effective salinity control opportunities, and it provides for utilization of proposals from project proponents as well as more involvement from the private as well as the public sector. The result is that salt loading is being prevented at costs often less than half the cost under the previous program. Congress recommitted its support to the revised program when it enacted

Public Law 106–459. The Basin States' cost sharing up-front adds 43 cents for every Federal dollar appropriated. The federally chartered Colorado River Basin Salinity Control Advisory Council, created by the Congress in the Salinity Control Act, has met and formally supports the requested level of funding. The Basin States urge the subcommittee to support the funding as set forth in this testimony.

ADDITIONAL SUPPORT OF FUNDING

In addition to the funding identified above for the implementation of the most recently authorized program, the Salinity Control Forum urges the Congress to appropriate necessary funds needed to continue to maintain and operate salinity control facilities as they are completed and placed into long-term operation. Reclamation has completed the Paradox Valley unit which involves the collection of brines in the Paradox Valley of Colorado and the injection of those brines into a deep aquifer through an injection well. The continued operation of this project and other completed projects will be funded through Operation and Maintenance funds.

In addition, the Forum supports necessary funding to allow for continued general investigation of the salinity control program. It is important that Reclamation have planning staff in place, properly funded, so that the progress of the program can be analyzed, coordination between various Federal and State agencies can be accomplished, and future projects and opportunities to control salinity can be properly planned to maintain the water quality standards for salinity so that the Basin States can continue to develop their Compact-apportioned waters of the Colorado River.

PREPARED STATEMENT OF THE FORT PECK ASSINIBOINE AND SIOUX TRIBES AND DRY PRAIRIE RURAL WATER

FISCAL YEAR 2004 BUDGET REQUEST

The Fort Peck Assiniboine and Sioux Tribes and Dry Prairie Rural Water respectfully request fiscal year 2004 appropriations for the Bureau of Reclamation from the Subcommittee on Energy and Water Development. Funds will be used to construct critical elements of the Fort Peck Reservation Rural Water System, Montana, (Public Law 106–382, October 27, 2000). The amount requested is $14,486,000 as set out below:

	Amount
Missouri River Water Treatment Plant	$10,604,000
Fort Peck Electrical, Meters, Easements	650,000
Culbertson to Medicine Lake	3,618,000
Dry Prairie P Electrical, Meters, Easements	635,000
Total	15,507,000
Federal	14,486,000
Non-Federal	1,021,000

The sponsor Tribes and Dry Prairie greatly appreciate the appropriations from the subcommittee for fiscal year 2003 that have permitted significant progress on the Missouri River intake and the first phase of the Culbertson to Medicine Lake Project.

PROPOSED ACTIVITIES

This project, which includes all of the Fort Peck Indian Reservation in Montana and the Dry Prairie portion of the project outside the Reservation, was authorized by Public Law 106–382, October 27, 2000. The request for fiscal year 2004 will begin the construction of the Missouri River water treatment plant, which will require fiscal year 2005 funds for completion. The request will also complete the Culbertson to Medicine Lake Project, which was initiated in fiscal year 2003. The Master Plan on page 2 of the testimony shows the relationship of the fiscal year 2004 request to the funds requested in fiscal year 2003 and the needs in fiscal year 2005.

MASTER PLAN—ASSINIBOINE SIOUX AND DRY PRAIRIE RWS

Segment	Project Cost (Oct. 2002)	Appropriated		Funding Needs			Fiscal Year 2007–Fiscal Year 2012
		Fiscal Year 2002 Funds	Fiscal Year 2003 Funds	2004	2005	2006	
Assiniboine and Sioux RWS:							
Intake	$3,418,000		$3,418,000				$0
Missouri River Water Treatment Plant	19,861,000		464,000	$8,000,000	$11,397,000		0
Poplar to Big Muddy	25,583,000		0			$12,792,000	12,791,000
Highway 13 to FP Boundary	10,430,000		0				10,430,000
Poplar to Wolf Point	16,794,000		0				16,794,000
Wolf Point to Porcupine Ck	28,539,000		0				28,539,000
FP OM Buildings	1,050,000		0				1,050,000
Fort Peck Electrical, Meters, Easements	4,414,000		0	490,000	490,000	490,000	2,944,000
Subtotal	110,089,000	$0	3,882,000	8,490,000	11,887,000	13,282,000	72,548,000
Planning, Design, Admin:							
Reclamation Oversight	4,634,000	295,000	154,000	465,000	465,000	465,000	2,790,000
Environmental Mitigation	579,000	0	0	64,000	64,000	64,000	387,000
Administration	7,987,000	503,000	322,000	796,000	796,000	796,000	4,774,000
Easement Acquisition	3,104,000	0	0	345,000	345,000	345,000	2,069,000
Design	8,980,000	2,237,000	500,000	500,000	829,000	911,000	4,003,000
Inspection	8,109,000	0	272,000	594,000	832,000	930,000	5,481,000
Subtotal	33,393,000	3,035,000	1,248,000	2,764,000	3,331,000	3,511,000	19,504,000
Total	143,482,000	3,035,000	5,130,000	11,254,000	15,218,000	16,793,000	92,052,000
Dry Prairie RWS:							
Big Muddy to Plentywood:							
Culbertson to Medicine Lake	4,630,000		2,265,000	2,365,000			0
Remaining	17,289,000		0	0	2,000,000	5,096,000	10,193,000
FP Boundary to Scobey	4,540,000		0	0			4,540,000
Scobey to Plentywood	11,097,000		0	0			11,097,000
Scobey to Opheim	8,962,000		0	0			8,962,000
Porcupine Creek to Glasgow	4,370,000		0	0			4,370,000
Glasgow to Opheim	3,955,000		0	0			3,955,000
DP OM Buildings	525,000		0	0			525,000

MASTER PLAN—ASSINIBOINE SIOUX AND DRY PRAIRIE RWS—Continued

Segment	Project Cost (Oct. 2002)	Appropriated		Funding Needs			Fiscal Year 2007–Fiscal Year 2012
		Fiscal Year 2002 Funds	Fiscal Year 2003 Funds	2004	2005	2006	
Dry Prairie P Electrical, Meters, Easements	3,732,000	.....	0	415,000	415,000	415,000	2,487,000
Subtotal	59,100,000	0	2,265,000	2,780,000	2,415,000	5,511,000	46,129,000
Planning, Design, Admin:							
Reclamation Oversight	2,497,000	85,000	63,000	261,000	261,000	261,000	1,566,000
Environmental Mitigation	313,000	6,000	20,000	32,000	32,000	32,000	191,000
Administration	4,675,000	121,000	132,000	491,000	491,000	491,000	2,949,000
Easement Acquisition	899,000	31,000	26,000	94,000	94,000	94,000	560,000
Design	4,838,000	342,000	100,000	350,000	427,000	427,000	3,192,000
Inspection	4,369,000	.....	170,000	245,000	219,000	386,000	3,349,000
Subtotal	17,591,000	585,000	511,000	1,473,000	1,524,000	1,691,000	11,807,000
Total	76,691,000	585,000	2,776,000	4,253,000	3,939,000	7,202,000	57,936,000
Total	220,173,000	3,620,000	7,906,000	15,507,000	19,157,000	23,995,000	149,988,000
Federal	201,767,000	3,480,000	7,240,000	14,486,000	18,212,000	22,267,000	136,083,000
Non-Federal	18,406,000	140,000	666,000	1,021,000	945,000	1,728,000	13,905,000
GRAND TOTAL	220,173,000	3,620,000	7,906,000	15,507,000	19,157,000	23,995,000	149,988,000

The project also has the capability to build the first portion of the pipeline leaving the water treatment plant. The section will be east of the water treatment plant and will serve the community of Poplar, headquarters community for the Assiniboine and Sioux Tribes. Construction is scheduled to start in fiscal year 2006. This will also provide a source of water for a section of the Fort Peck Indian Reservation contaminated by oil drilling operations and the subject of EPA orders to the non-Tribal oil company responsible. The oil company will provide the distribution system necessary to mitigate the problems and the Assiniboine and Sioux Rural Water System will provide the interconnecting pipeline without duplicating any facilities identified in the Final Engineering Report. This is an exigent circumstance that will be corrected by the project in fiscal year 2006. No funds are requested for fiscal year 2004 for this project even though design will be complete.

The Dry Prairie rural water system will finish the facilities necessary to bring water supplies from an existing treatment plant on the Missouri River at Culbertson to Medicine Lake where the existing water treatment is inoperable. The system to be completed in fiscal year 2004 will also provide the capability to connect to Dane Valley residents. The Dane Valley project will rely on fiscal year 2005 and fiscal year 2006 funds to mitigate costs of hauling water so prevalent there. The budget request is consistent with the Master Plan on the previous page as approved by the Bureau of Reclamation.

STATUS OF PROJECT DESIGN

The Final Engineering Report (FER), water conservation plan and Finding of No Significant Impact were completed in fiscal year 2002. The FER was delivered to OMB in May 2002 and was released to the Department of Interior for review and delivery to Congress in March 2003. The requirement to reside with Congress for 90 days will expire at the end of July 2003. Design is nearing completion or is completed for the Missouri River intake and the Culbertson to Medicine Lake Project. Those projects will commence construction in July/August 2003.

Design of the water treatment plant will end in late fiscal year 2003 or early fiscal year 2004. The design of the lagoons at the water treatment plant and the site landscaping will be completed in third-quarter fiscal year 2003, and construction of these preliminary facilities will begin in late fiscal year 2003.

Design of the Poplar to Big Muddy pipeline is well advanced and can be completed to utilize first quarter fiscal year 2004 funds, but the appropriation requirements to undertake this pipeline construction in combination with the water treatment plant were considered too great to include in the funding request. Therefore, construction of this pipeline will depend on the availability of funds not currently identified in fiscal year 2004 or fiscal year 2005 or as programmed in fiscal year 2006 in the master plan presented above. The discussion of this pipeline is intended to demonstrate the capability of the project to use funds prior to fiscal year 2006 if funding were available.

Similarly, the design of the branches that will serve rural residents between Culbertson and Medicine Lake can be concluded in time to utilize fiscal year 2004 or fiscal year 2005 funds, and the discussion is intended to demonstrate capability to use funding if it were available.

LOCAL PROJECT SUPPORT

The Fort Peck Tribes have supported the project since 1992 when they conceived it and sought means of improving the quality of life in the region. The planning was a logical step after successful completion of an historic water rights compact with the State of Montana. This compact was the national "ice breaker" that increased the level of confidence by other Tribes in Indian water right settlement initiatives. The Tribes did not seek financial compensation for the settlement of their water rights but contemplated water development for meaningful projects as now authorized.

The 1999 Montana Legislature approved a funding mechanism from its Treasure State Endowment Program to finance the non-Federal share of project planning and construction. Demonstrating support of Montana for the project, there were only three votes against the statutory funding mechanism in both the full House and Senate. The 2001 and 2003 Montana Legislatures have provided all requirements of the non-Federal cost share.

Dry Prairie support is demonstrated by a financial commitment of all 14 communities within the service area to participate in the project. Rural support is strong, with about 70 percent of area farms and ranches intending to participate as evidenced by their intent fees of $100 per household.

NEED FOR WATER QUALITY IMPROVEMENT

The Fort Peck Indian Reservation was designated as an "Enterprise Community" during the previous administration, underscoring the level of poverty and need for economic development in the region. The success of the economic development within the Reservation will be significantly enhanced by the availability of higher quality, safe and more ample municipal, rural and industrial water supplies that this regional project will bring to the Reservation, made more necessary by an extended drought in the region. Outside the Fort Peck Indian Reservation, the Dry Prairie area has income levels that are higher than within the Reservation but lower than the State average.

The feature of this project that makes it more cost effective than similar projects is its proximity to the Missouri River. The southern boundary of the Fort Peck Indian Reservation is formed by the Missouri River for a distance of more than 60 miles. Many of the towns in this regional project are located 2 to 3 miles from the river, including Nashua, Frazer, Oswego, Wolf Point, Poplar, Brockton, Culbertson, and Bainville. As shown on the enclosed project map, a looping transmission system outside the Fort Peck Indian Reservation will deliver water 30 to 40 miles north of the Missouri River. Therefore, the distances from the Missouri River to all points in the main transmission system are shorter than in other projects of this nature in the Northern Great Plains.

ADMINISTRATION'S BUDGET FOR FISCAL YEAR 2004

The administration's budget for fiscal year 2004 contained serious errors in analysis when it included the Fort Peck Reservation Rural Water System with other rural water projects that were characterized as follows:

". . . many projects are currently developed by local sponsors without agency involvement and submitted to Congress for authorization. Agency involvement is necessary to ensure that all options to efficiently and effectively meet local needs are considered. The lack of agency involvement during project development may result in a project that is not in the local interest . . .".

The Tribes and Dry Prairie worked extremely well and closely with the Bureau of Reclamation prior to and following the authorization of this project in fiscal year 2000. The Bureau of Reclamation reviewed and commented on the Final Engineering Report for the project, and comments were either incorporated into the report or agreement was reached on final presentation. The Commissioner, Regional and Area Offices of the Bureau of Reclamation were consistently in full agreement with the need, scope, total costs, and the ability to pay analysis that supported the Federal and non-Federal cost shares. All of these items were thoroughly and formally reviewed in writing by the Bureau of Reclamation and there were no areas of disagreement or controversy in the final formulation of the project. Bureau of Reclamation testimony during the authorization phase fully supported the project within the Fort Peck Indian Reservation and opposed any Federal participation in the costs of the project outside the Fort Peck Indian Reservation, as a matter of policy, but Congress addressed that issue in Public Law 106–382.

The Bureau of Reclamation collaborated with the Tribes and Dry Prairie to conduct and complete value engineering investigations of the Final Engineering Report (planning), the Culbertson to Medicine Lake pipeline (design), the Poplar to Big Muddy River pipeline (design), the Missouri River intake (design) and (during the week of March 31, 2003) on the regional water treatment plant (design). Each of these considerable efforts has been directed at ways to save construction and future operation, maintenance and replacement costs as planning and design have proceeded. Agreement with Reclamation has been reached in all value engineering sessions on steps to take to save Federal and non-Federal costs in the project.

Cooperative agreements have been developed and executed from the beginning phases to date between the Bureau of Reclamation and the Tribes and between Bureau of Reclamation and Dry Prairie. Those cooperative agreements carefully set out goals, standards and responsibilities of the parties for planning, design and construction. All plans and specifications are subject to levels of review by the Bureau of Reclamation pursuant to the cooperative agreements. The sponsors do not have the power to undertake activities that are not subject to oversight and approval by the Bureau of Reclamation. Each year the Tribes and Dry Prairie are required by the cooperative agreements to develop a work plan setting out the planning, design and construction activities and the allocation of finding to be utilized on each project feature.

Clearly, the Fort Peck Reservation Rural Water System does not fall into the category of concern expressed in the fiscal year 2004 budget by the Bureau of Reclama-

tion. This project has been authorized by Congress with a plan formulated in full cooperation and collaboration with the Bureau of Reclamation, and major project features will be under construction in fiscal year 2003. The project sponsors are disappointed that the fiscal year 2004 budget did not include a significant level of funding for the Fort Peck Reservation Rural Water System in a year in which the overall budget for Reclamation increased by more than 6 percent. The sponsors are similarly disappointed that narrative in the report improperly characterized the planning, design and construction history of this project.

LETTER FROM THE WYOMING WATER ASSOCIATION

Cheyenne, WY, June 2, 2003.

The Honorable PETE V. DOMENICI,
Chairman,

The Honorable HARRY REID,
Ranking Minority Member,
Energy and Water Development Subcommittee, Committee on Appropriations, United States Senate, 129 Dirksen Senate Office Building, Washington, DC 20510.

DEAR CHAIRMAN DOMENICI AND SENATOR REID: The Wyoming Water Association is writing to request your support for an appropriation in fiscal year 2004 of $6,915,000 to the Bureau of Reclamation within the budget line item entitled "Endangered Species Recovery Implementation Program" for the Upper Colorado River Region. The President's recommended budget for fiscal year 2004 includes this line-item amount. The Association respectfully requests the designation of $5,479,000 for the Upper Colorado River Endangered Fish Recovery Program; $851,000 for the San Juan River Basin Recovery Implementation Program, $535,000 for Fish and Wildlife Management and Development and $50,000 for Water and Energy Management and Development.

The objectives of the Wyoming Water Association are to promote the development, conservation, and utilization of the water resources of Wyoming for the benefit of Wyoming people. Since 1932, the Wyoming Water Association has served the interests of Wyoming's water users. With changing and growing demands on Wyoming's limited water resources, complicated by an increasingly complex overlay of Federal laws and regulations, management and development challenges and conflicts continue to become more numerous. The Association maintains an active role in supporting the State of Wyoming's efforts to put Wyoming water to use for Wyoming's citizens.

These ongoing, highly successful, cooperative programs involving the States of Colorado, New Mexico, Utah and Wyoming, Indian tribes, Federal agencies and water, power and environmental interests have as their objective recovering endangered fish species while water development proceeds in compliance with the Endangered Species Act of 1973. They reflect the proper approach to providing endangered species conservation and recovery within the framework of the existing Federal Endangered Species Act, while concurrently resolving critical conflicts between endangered species recovery and the development and use of Compact-apportioned water resources in the Upper Colorado River Basin region of the Intermountain West.

The requested fiscal year 2004 appropriation will allow construction of fish passage at the Grand Valley Project and Price-Stubb diversion dams on the Colorado River near Grand Junction, Colorado, providing access to an additional 50 miles of historic habitat upstream of these dams. Floodplain restoration activities, including levee removal and obtaining conservation easements will continue at high-priority sites and is especially important for the survival of the razorback sucker species. Screening of existing diversion canals, including those of the Redlands Water and Power Company and Grand Valley Project, will be accomplished with the requested funding. Screens are needed to prevent endangered fish from being drawn out of the river and into the canals and power plant intakes at these facilities. The requested funding for the San Juan River Recovery Program will be used to design a fish passage at the Arizona Public Service weir and initiate floodplain restoration for razorback sucker in that Basin.

Substantial non-Federal cost sharing funds are provided by the four States, power users, and water users in support of these recovery programs. Public Law 106–392, as amended by Public Law 107–375, authorized the Federal Government to provide up to $46 million of cost sharing for these two ongoing recovery programs' remaining capital construction projects. The four participating States are contributing $17 million and $17 million is being contributed from revenues derived from the sale of Colorado River Storage Project (CRSP) hydroelectric power. Additional hatchery

facilities to produce endangered fish for stocking, restoring floodplain habitat and fish passage, regulating and supplying instream habitat flows, installing diversion canal screens to prevent fish entrapment and controlling nonnative fish populations are key components of the capital construction efforts. These facts demonstrate the strong commitment and effective partnerships that are present in both of these successful programs.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. The Wyoming Water Association gratefully thanks you for that support and request the subcommittee's assistance relative to fiscal year 2004 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

Sincerely,

JOHN W. SHIELDS,
Executive Secretary.

PREPARED STATEMENT OF THE CROW CREEK SIOUX TRIBE

FISCAL YEAR 2004 BUDGET REQUEST

The Crow Creek Sioux Tribe respectfully requests fiscal year 2004 appropriations for the Bureau of Reclamation from the subcommittee on Energy and Water Development. Funds will be used to construct the urgently needed pipeline from Fort Thompson to Stephan. Planning studies for the project (Special Study, environmental assessment, and water conservation plan) back up the request. The project has been supported by the subcommittee since fiscal year 1995.

The amount requested for fiscal year 2004 is $6,824,000 as set out below:

Fort Thompson to Stephan Emergency Project	$5,536,000
Reclamation Oversight	208,000
Environmental Mitigation	42,000
Administration	637,000
Design and Investigations	401,000
Inspection	277,000
Total	6,824,000

PROPOSED ACTIVITIES

The request for funds in fiscal year 2004 is for construction of the urgently needed pipeline system between Fort Thompson and Stephan on the Crow Creek Indian Reservation. Fort Thompson is on the Missouri River near Big Bend Dam and has an intake and water treatment plant capable of serving the entire Crow Creek Indian Reservation with high-quality water. Stephan is a community 14 miles north of Fort Thompson and the home of a regional Indian high school within inadequate and extremely poor water quality. The pipeline system between Fort Thompson and Stephan will be constructed with sufficient capacity to serve rural households along the route and to extend the system in future years to the Big Bend community, all part of the implementation of a comprehensive system on the Reservation. This is not a new project but one that has been in development for more than 8 years with oversight by the Bureau of Reclamation and periodic line-item appropriations by Congress.

EXIGENT CONDITIONS

There is a need to construct facilities to distribute Missouri River water and improve water quality throughout the Crow Creek Indian Reservation. This action will reduce health risks to the membership of the Crow Creek Sioux Tribe and other residents of the Reservation. With the exception of the community of Fort Thompson, water supplies and water quality are deplorable throughout the Reservation.

There is an immediate need to extend pipelines from Fort Thompson to the community and day school at Stephan where water quality is extremely poor, and existing wells are limited in capacity. Efforts last year to drill new wells to replace failing wells of very poor quality were not successful. The new wells also fail to produce an adequate water supply, and there was no improvement of the exceedingly for water quality. The school at Stephan provides for over 200 students. Staff and teachers reside at the school. Reliance for drinking water has been placed on bottled water, and fire protection is inadequate given the current lack of supply.

Inspired by efforts of the Crow Creek Sioux Tribe, including the planning for the Reservation municipal, rural and industrial water system, the water treatment facilities at Fort Thompson have been improved with microfilters that produce high quality water for residents of the community. The new water treatment facilities are incorporated as a part of the Reservation-wide project and, with construction of necessary pipelines, will permit delivery of high-quality water north to Stephan.

The need for the Reservation-wide project is underscored by the population increases documented by the 2000 census. Our planning had projected population increases on the Reservation from 1990 to 2000 at a rate of 14.3 percent. The actual rate of growth experienced in the last decade was 26.7 percent, significantly greater than what was believed to be a liberal projection made from the 1990 census.

The subcommittee is respectfully requested to carefully consider the Tribe's needs and provide the necessary funding to complete this emergency project.

PROJECT CONSTRUCTION COSTS AND RECOMMENDED PROJECT ALTERNATIVE

Costs of reservation-wide alternatives, including construction contracts and non-contract costs, range from $15,403,000 (Alternatives b, d and e) to $17,853,000 (Alternative a) in October 1998 dollars.

Based on the least cost scenario considering all life-cycle costs and the Tribe's desire for self-determination, the Tribe's preferred project alternative is Alternative a ($17,853,000): source of water on Lake Sharpe near Fort Thompson, constructed, operated, maintained and replaced by the Crow Creek Sioux Tribe. Environmental factors, such as cultural and historic resources, and identifiable impacts on physical and biological resources are not significantly different between alternatives.

Five alternatives for developing the project were:

—A project constructed, operated, maintained and replaced by the Crow Creek Sioux Tribe and meeting all needs through year 2030 within the Crow Creek Indian Reservation. Source of water would be the Missouri River with modifications to the existing intake and water treatment plant at Fort Thompson.

—A project constructed, operated, maintained and replaced by the Crow Creek Sioux Tribe and meeting all needs through year 2030 within the Crow Creek Indian Reservation. Source water would be the Missouri River from the intake and water treatment plant constructed by Mid-Dakota on Lake Oahe. The reservation system would be connected to the Mid-Dakota system along the northern and eastern borders of the reservation. Mid-Dakota would sell water to the Tribe as a bulk user.

—A project constructed, operated, maintained and replaced by the Crow Creek Sioux Tribe to service the Fort Thompson and Crow Creek community areas, and rural areas in between, from intake and water treatment plant at Fort Thompson. The balance of the project would be constructed, operated and maintained by Mid-Dakota with water supply from the Mid-Dakota intake and water treatment plant.

—A project constructed, operated, maintained and replaced exclusively by Mid-Dakota to service the entire reservation with water supply from the Mid-Dakota intake and water treatment plant.

—A project constructed by Mid-Dakota throughout the reservation and operated, maintained and replaced by the Crow Creek Sioux Tribe with water supply from the Mid-Dakota intake and water treatment plant.

FUTURE OPERATION, MAINTENANCE AND REPLACEMENT (OMR) COSTS

Future operation, maintenance and replacement costs, including staff, equipment, electricity, chemicals and all other materials necessary for repair and replacement, have an estimated range in cost from $597,195 (Alternative a) to $826,185 (Alternatives b, d and e).

PRESENT VALUE OF NET COSTS

Net costs were estimated as the present value of the costs of construction and OMR less the off-setting value of construction and OMR earnings by members of the Crow Creek Sioux Tribe, an under-employed labor force. Present value of net costs ranges from $15,348,180 (Alternative a) to $22,673,000 (Alternatives d and e).

CONSTRUCTION SCHEDULE

A construction schedule beginning in fiscal year 2003 and ending in fiscal year 2006 is proposed. Construction and non-contract employment would provide 131 full-time equivalent man years of employment. Annual levels of funding needs would range from $2,135,000 in fiscal year 2003 to $6,736,000 in fiscal year 2005.

ENVIRONMENTAL FACTORS

Pipelines proposed for the project range from 1.5 to 12 inches in diameter and have lengths ranging from 269.8 miles (Alternative c) to 276.4 miles (Alternative a). From five to seven pump stations with horsepower ranging from 103.0 to 164.5 are representative of the alternatives. From six to eight reservoirs with up to 495,000 gallons of capacity are proposed. Future population growth will require approximately 5 acres of new wastewater lagoons by year 2030.

Approximately 70 wetlands will be crossed by the project on the basis of the current layout, which will be modified in later designs to avoid wetlands. As many as 31 perennial stream crossings will be made. Nearly 43 miles of prime farmlands will be crossed by pipelines where most of the farmlands are defined as "prime" if irrigated in the future. Approximately 23 miles of unstable soils will be crossed. Up to 134 miles of trust lands (slightly less than 50 percent of the total) will be crossed by pipelines.

An Environmental Assessment and a class I cultural resource inventory and descriptive report have been prepared.

POPULATION

The population of the Crow Creek Indian Reservation in the 2000 census was 2,225 persons: 2,074 Indian persons and 251 non-Indian persons. Based on the rate of growth in the Indian and non-Indian population over the past several decades, year 2030 population estimates were made resulting in a future population of 3,417. These estimates recognize a relatively high growth rate within the Indian population and out-migration by non-Indians.

INCOME AND EMPLOYMENT

Median household income in 2000 on the Crow Creek Indian Reservation averaged $12,070 (down from $12,763 in 1990) as contrasted with an average for the State of South Dakota of $35,282 (up from $22,503 in 1990). The Indian labor force on the reservation represented 55.7 percent of the population over 16 years of age, and 21.6 percent were unemployed. Across the State of South Dakota, 68.4 percent of the population was in the labor force, and 3.0 percent were unemployed. Income levels on the reservation are extremely low, and unemployment is extremely high. The percentage of families below poverty level in the 2000 census was 56.5 percent on the Reservation and 9.3 percent in South Dakota. (Note: the reporting is from the Special Study, which is being modified in detail, but not substance.)

PREPARED STATEMENT OF THE JICARILLA APACHE NATION

The Jicarilla Apache Nation respectfully requests $5 to $8 million in the fiscal year 2004 appropriations cycle to begin construction on the water delivery and wastewater infrastructure improvement project authorized by Title VIII of Public Law 107–331, December 13, 2002 (The Jicarilla Apache Reservation Rural Water System Act). This law authorized a $45 million project to repair and replace the dilapidated federally owned water delivery and waste water system that serves the Jicarilla Apache Reservation in north-central New Mexico.

AUTHORIZING LEGISLATION

The Jicarilla Apache Reservation Rural Water System Act was introduced by Representative Tom Udall (D-NM) along with the other New Mexico Congressional Representatives Joe Skeen and Heather Wilson, as original co-sponsors, and including 12 additional co-sponsors. Senators Pete Domenici (R-NM) and Jeff Bingaman (D-NM) supported and guided the legislation through the Senate. The purpose of the Act is to ensure a safe and adequate water supply for the citizens of the Jicarilla Apache Reservation, and authorizes the Department of the Interior, through the Bureau of Reclamation (BoR), and the Nation to plan, design and construct a safe and adequate water system utilizing Public Law 93–638 contracting authority. The Act requires the Secretary of the Department of the Interior to enter a Public Law 93–628 contract with the Nation with the ultimate goal of the Nation assuming title and responsibility of operating and maintaining the system. The Act authorizes appropriations in the amount of $45,000,000 for the construction of the water system.

BACKGROUND

The existing water and wastewater facilities on the Jicarilla Apache Reservation are held in trust by the United States Department of the Interior and operated by

the Bureau of Indian Affairs (BIA) Jicarilla Agency staff. The initial water supply system was erected in the early 1900's in the community of Dulce primarily to serve the BIA operations and facilities. The source of the community's water supply is the Navajo River located about a mile from Dulce.

Over the years, random and ad hoc connections and expansions have been made to the system, and without adequate upkeep and substantial improvements, it has deteriorated and become over utilized. The public water system does not adequately and safely serve the existing and future growth needs of the Nation. Moreover, the system's deteriorated state created serious public health problems. Jicarilla members are experiencing high incidences of internal organ diseases affecting the liver, kidneys and stomach. The diseases are suspected to be related to the poor condition of the drinking water distribution system and inadequate treatment of wastewater. The resulting pollution released from non-compliant sewage ponds has creating public health hazards for families and communities within and well beyond the Nation's borders.

The Nation has delayed important community improvement efforts, including the construction of much needed housing and the replacement of deteriorating public healthcare facilities and tribal administrative offices due to the lack of a modern waste water treatment facility.

In the 1990's, the Nation began assessing the feasibility of assuming ownership and operation of the systems and commissioned studies to assess their condition. The findings indicated it would cost $25 million to bring the systems into compliance with Federal water quality standards. This investment did not, however, include community expansion needs.

These dire conditions escalated in October of 1998, when the drinking water diversion system on the Navajo River failed leaving the community without water for 6 days. With no funding from BIA or other Federal programs, the Nation was compelled to expend $5 million on an emergency basis to replace the water treatment plant and associated facilities in 1999.

LEGISLATIVE APPROACH

The magnitude of the infrastructure issues couple with the BIA's inability to comprehensively address the scope of the problems associated with their systems left the Tribal leadership with no alternative but to take the lead to resolve these issues. The Nation approached the BoR and learned that legislation would be needed to authorize BoR to conduct a Feasibility Study to determine the most feasible method of developing a safe and adequate municipal, rural, and industrial water supply for the Jicarilla Apache Reservation. The Nation working with the New Mexico Congressional Delegation pursued such legislation, and on July 10, 2000, the President signed into law Public Law 106–243 which directed the Secretary of the Interior to work in cooperation with the Jicarilla Apache Nation in conducting the Feasibility Study. The statute also authorized $200,000 for the completion of the study.

In September 2001, BoR, in cooperation with the Nation completed the feasibility study and report, entitled "Municipal Water and Wastewater Systems Improvement, Jicarilla Apache Nation, Dulce, New Mexico, Planning Report/Environmental Assessment." The report recommended that none of the older existing pipelines be salvaged due to age and size and that an estimated $35 million was needed to adequately replace existing deteriorated facilities and to build a new conventional wastewater treatment plant to treat water to Federal discharge standards, eliminate the serious odor problem permeating the community, and enhance the community's water supply. The report recommended an additional $10 million to address environmental and public health needs and to meet long-term growth and economic development needs of the Jicarilla Apache Nation, for a total project cost of $45 million.

TRIBAL CONTRIBUTIONS TO THE PROJECT

After discovering the Federal programs and funding sources were limited to solve even the immediate capacity problems and public health concerns, the Nation was compelled to fund several projects beginning in 1998.

Projects	Tribal Funding
Studies and Engineering	$450,000
Water Treatment Plant	2,730,000
Water Storage and Distribution	2,240,000
Mundo Development Infrastructure (completed by 2003)	2,250,000

Projects	Tribal Funding
Wastewater Design and Initial Construction	6,000,000
Total Tribal Investment	14,670,000

On a percentage basis, this investment would amount to nearly 25 percent of total project costs, if what the Nation has already funded ($14.6 million) is added to the Federal portion being requested ($45 million). The Nation recently committed an additional $6 million to begin construction on the new wastewater treatment plant because the current situation is so extreme and requires immediate action. The total project cost is broken listed below:

Replace existing water system facilities	$18,500,000
Replace existing waste water system facilities	18,640,000
Total to replace existing water/wastewater systems	35,140,000
Provide wastewater facilities to areas not served	2,800,000
Total to replace existing water/wastewater facilities for all existing development	35,140,000
Water system facilities to the expansion area (known as ''Mundo Ranch'')	3,550,000
Wastewater system facilities to the Mundo ranch	3,550,000
Total for water/wastewater facilities for Mundo ranch	7,100,000
TOTAL PROJECT COST	45,040,000

Moreover, the Nation is making the commitment to assume title to the facilities and to operate these facilities in perpetuity once constructed to Federal standards. This is a significant Federal benefit as it alleviates the Federal liability in the operation of a substandard system and shifts the costs of operations, maintenance and replacement of these facilities to the Nation. It is estimated by the O,M&R portion of the report, that it will cost approximately $750,000 per year to adequately operate and maintain these facilities. The Federal investment would be protected under tribal management as BIA funding for this purpose has been significantly cut over the years resulting in the current conditions that exist today. The present value of this cost over a 50-year project life at a 6 percent financing rate is $12 million.

CURRENT STATUS

In addition to the funding for the Feasibility Report, Senator Domenici was instrumental in securing $2.5 million for final design work and to prepare for the initiation of construction. Accordingly, the Nation has entered into a Self-Determination Act (Public Law 93–638) Construction Assistance Agreement on September 2002 with the Bureau of Reclamation. As of April 15, 2003, the Nation has met all conditions and requirements of this Agreement and has prepared final plans and specifications to construct approximately $2.3 million in water and wastewater infrastructure critical to its needs. Advertisement for bids is scheduled for April 30th and construction is scheduled to begin June 15. Completion of this phase will coincide with completion of a wastewater treatment facility currently under construction with tribal funds scheduled for operations in January 2004.

USE OF APPROPRIATIONS IN FISCAL YEAR 2004

The Nation is prepared to begin final design work for the next phase of construction upon notification of funding availability. A design-build approach will be utilized to expedite construction and the Nation has management capacity for up to $10 million for fiscal year 2004. Features that would be constructed are the raw water pumping station and related pipeline, water distribution and wastewater collection facilities in the southwest portion of the community and similar features at the Mundo Ranch development. These components were thoroughly studied and assessed in the Feasibility Report and would be constructed accordingly.

CONCLUSION

By authorizing this project, Congress provided a mechanism for the United States to meet its trust responsibility to the Nation by providing adequate water and wastewater infrastructure to protect and advance the health, safety and welfare of the Jicarilla people. The Nation, in cooperation with Reclamation and with the assistance of Congress, has demonstrated the poor condition that these facilities are in and have exposed the risk facing the Bureau of Indian Affairs as it continues to operate these facilities in their current condition. The Nation has demonstrated our

resolve in improving conditions for our people by investing nearly $15 million in infrastructure of our own financial resources even though we believe strongly that the United States has failed in providing these services as part of its trust responsibility to the Nation.

In sum, the Jicarilla Apache Nation is suffering premature deaths, community members are subject to continuing health hazards, and community development is blocked by the Department of the Interior's failure to maintain and modernize the public water system that it established and undertook to operate on the Reservation. Interior has asked the Jicarilla Apache Nation to take over the operation of the public water system, and as a Tribal Government we are willing to take over the operation of a safe and sound public water system. But before we will take over the operation, Interior must fix the health hazard that it has created. Therefore, we respectfully request the Committee to appropriate $5 to $8 million in fiscal year 2004 to begin construction of this project.

PREPARED STATEMENT OF THE MID-DAKOTA PROJECT

First let me thank the Subcommittee for the opportunity to testify in support of the fiscal year 2004 appropriations for the Mid-Dakota Rural Water Project and for the Subcommittee's support both past and present.

The Mid-Dakota Project is requesting $23.869 million in Federal appropriations for fiscal year 2004. As with our past submissions to this subcommittee, Mid-Dakota's fiscal year 2004 request is based on a detailed analysis of our ability to proceed with construction during the fiscal year. In all previous years, Mid-Dakota has fully obligated its appropriated funds, including Federal, State, and local, and could have obligated significantly more were they available.

TENTATIVE FISCAL YEAR 2004 CONSTRUCTION SCHEDULE [1]

The proposed construction would provide service to an estimated 14,000 more people than are currently receiving or scheduled to receive Project drinking water (estimate includes the City of Huron, SD). Our construction schedule will also provide the necessary pipeline infrastructure to move forward with many more rural and community connections in the future.

MID-DAKOTA RURAL WATER SYSTEM STATEMENT OF CAPABILITIES—FISCAL YEAR 2004 (OCTOBER 2003 THROUGH SEPTEMBER 2004)

	Construction	Inspection Percent of Construction	Engineering and Legal	Subtotals
100—Source and Intake (percent)		12	10	
200—Water Treatment (percent)		0	0	
Huron—Constructed MD Facilities	$150,000			$150,000
Huron—Improvements & Assistance	$100,000			$100,000
Subtotals				$250,000
300—Main Transmission Pipeline (percent)		8	8	
Pumping Stations	$1,384,547	$110,764	$110,764	$1,606,075
3–3D Cathodic Protection System	$142,800	$11,424	$11,424	$165,648
Increase Collins Slough BPS	$884,660	$6,773	$6,773	$98,206
Subtotals	$1,612,007	$128,961	$128,961	$1,869,928
400—Distribution Pipeline (percent)		6	6	
Highmore East	$1,232,480	$73,949	$73,949	$1,380,378
Wolsey	$7,737,224	$464,233	$464,233	$8,665,691
Staum Dam	$1,833,409	$110,005	$110,005	$2,053,418
Redfield East	$376,839	$22,610	$22,610	$422,060
Improve West Canning Service Area	$207,050	$12,423	$12,423	$231,896

[1] Project features listed in table are subject to rescheduling based upon funding provided and readiness to proceed and other factors. Actual construction activities, therefore, may not coincide exactly with schedule presented here.

MID-DAKOTA RURAL WATER SYSTEM STATEMENT OF CAPABILITIES—FISCAL YEAR 2004 (OCTOBER 2003 THROUGH SEPTEMBER 2004)—Continued

	Construction	Inspection Percent of Construction	Engineering and Legal	Subtotals
Subtotals	$11,387,002	$683,220	$683,220	$12,753,442
500—Water Storage (percent)		12	6	
Wolsey	$2,050,000	$246,000	$123,000	$2,419,000
Staum Dam	$510,000	$61,200	$30,600	$601,800
Pearl Creek	$510,000	$61,200	$30,600	$601,800
Redfield	$430,000	$51,600	$25,800	$507,400
Huron-Water Storage Tank Cost Share	$600,000			$600,000
Subtotals	$4,100,000	$420,000	$210,000	$4,730,000
SCADA and Controls (percent)		12		
Controls and SCADA System	$509,925	$40,794	$40,794	$591,513
Subtotals	$509,925	$40,794	$40,794	$591,513
	$17,858,934	$1,272,975	$1,062,975	$20,194,883
Administration and General as a percent of Construction—3.0 percent				$535,768
Bur. of Rec. oversight as a percent of Construction—3.0 percent				$535,768
Contingencies as a Percent of Construction				$1,785,893
TOTAL RURAL WATER SYSTEM CAPABILITIES—FISCAL YEAR 2004				$23,052,313
WETLAND ENHANCEMENT COMPONENT REQUEST—FISCAL YEAR 2004				$817,117
TOTAL RURAL WATER AND WETLAND CAPABILITY—FISCAL YEAR 2004				$23,869,430

IMPACTS OF FISCAL YEAR 2004 AWARD

The most obvious impact of any significant reduction from Mid-Dakota's request will be the delay of construction of one or more Project components. The $23.869 million request will allow the Project to proceed with construction of multiple contracts summarized later in this testimony. An award of less than our request will result in the deletion or reconfiguration of one or more of these contracts from the fiscal year 2004 construction schedule. Further, reduced appropriations have the effect of adding more cost to the amount needed for completion of the Project.

HISTORY OF PROJECT FUNDING

The Project was authorized by Congress and signed into law by President George H.W. Bush in October 1992. The Federal authorization for the project totaled $100 million (1989 dollars) in a combination of Federal grant and loan funds (grant funds may not exceed 85 percent of Federal contribution). The State authorization was for $8.4 million (1989 dollars). A breakdown of Project cost ceilings are as follows:

PROJECT COST CEILINGS (FISCAL YEAR 2004)

Federal Ceiling	$140,279,000
State Ceiling	9,670,000
Subtotal Rural Water System	149,949,000
Wetland Enhancement Component	2,756,000
Total Project Cost Ceiling	152,705,000

The total authorized indexed cost of the project is approximately $152.705 million (fiscal year 2004). All Federal funding considered, the Government has provided 80 percent of its commitment ($114.135[2] million of $143.035 million) to provide construction funding for the Project. When considering the Federal and State combined awards, the project is approximately 81 percent complete, in terms of financial commitments.

SUMMARIZATION OF FEDERAL FUNDING

[In Millions of Dollars]

Fed. Fiscal Year	Mid-Dakota Request	Pres. Budget	House	Senate	Conf. Enacted Levels	Bureau Award Levels	Additional Funds	Total Fed. Funds Provided
1994	7.991	.....	.....	2.000	2.000	1.500	.....	1.500
1995	22.367	.....	.....	8.000	4.000	3.600	.....	3.600
1996	23.394	2.500	12.500	10.500	11.500	10.902	2.323	13.225
1997	29.686	2.500	11.500	12.500	10.000	9.400	1.500	10.900
1998	29.836	10.000	12.000	13.000	13.000	12.221	1.000	13.221
1999	32.150	10.000	10.000	20.000	15.000	14.100	2.000	16.100
2000	28.800	5.000	15.000	7.000	14.000	12.859	1.000	13.859
2001	24.000	6.040	11.040	6.040	10.040	9.398	.....	9.398
2002	30.684	10.040	15.040	15.540	15.040	13.611	0.861	14.472
2003	29.360	10.040	17.040	17.900	17.900	.....	.....	.....
2004	23.869	2.040	.....	.....	.....	.....	.....	.....
Totals[3]	.....	58.160	104.120	112.480	112.480	87.591	8.684	96.275

[3] Includes Congressional appropriations for the operation and maintenance of the ''Wetland Enhancement'' Component of the Project.

Additionally, the State of South Dakota has contributed $9.67 million in grants to the Mid-Dakota Project, in previous years. The State of South Dakota completed its initial authorized financial obligation to the Mid-Dakota Project in the 1998 Legislative Session.

CONSTRUCTION IN PROGRESS

Mid-Dakota began construction in September of 1994, with the construction of its Water Intake and Pump Station. Since that eventful day of first construction start, we have bid, awarded, and completed 23 project components and are into construction on eight other major Project components. The following table provides a synopsis of each major construction contract:

SUMMARIZATION OF CONSTRUCTION

[In Millions of dollars]

Cont. No.	Description	Cont. Budget[4]	Cont. Bid Award	Final Cont. Price	Over (Under) Budget	Percent Over (Under) Budget
1–1	Oahe Water Intake and Pump Station	4.662	3.959	3.945	(0.717)	(15)
2–1	Oahe Water Treatment Plant	13.361	9.920	10.278	(3.083)	(23)
3–1A	Raw Water Pipeline	1.352	1.738	1.719	0.367	27
3–1B	Main Pipeline—Blunt	7.823	6.916	7.024	(0.799)	(10)
3–1C	Main Pipeline—Highmore	5.439	4.791	4.798	(0.641)	(12)
3–1D	Main Pipeline—CP 1st Phase	0.220	0.215	0.215	0.010	(0.5)
3–2A	Main Pipeline—Ree Hights	3.261	3.155	3.149	(0.112)	(3)
3–2B	Main Pipeline—St. Lawrence, SD	3.691	3.349	3.352	(0.339)	(9)
3–3A	Main Pipeline—Wessington, SD	2.700	2.406	2.383	(0.317)	(12)
3–3B	Main Pipeline—Wolsey, SD	4.291	3.928	(6)	(7)	(7)
3–3C	Main Pipeline—Huron, SD	2.938	2.629	(6)	(7)	(7)
4–1A/B (1–5)	Distribution System—West	9.345	9.983	10.731	[5] 1.386	15
4–1A/B (6)	Distribution System—North West	8.333	8.329	9.028	[5] 0.695	8
4–2 (1)	Distribution System—Central	4.727	4.717	4.700	(0.027)	(0.5)
4–2 (2)	Distribution System—South Central	2.763	2.835	3.000	[5] 0.237	9
4–2 (4–5)	Distribution System—Central	5.753	4.952	5.135	(0.620)	(11)

[2] Includes $17.860 million appropriated in fiscal year 2003, but does not include Agency "underfinancing".

SUMMARIZATION OF CONSTRUCTION—Continued

[In Millions of dollars]

Cont. No.	Description	Cont. Budget [4]	Cont. Bid Award	Final Cont. Price	Over (Under) Budget	Percent Over (Under) Budget
4–2A (4)	Distribution System—Central	1.042	991	1.186	[5] 0.140	13
4–2AP (2–3)	Distribution System—Central	10.340	9.824	([6])	([7])	([7])
4–2 AV (2–3)	Distribution System Vaults—Central	668	557	([6])	([7])	([7])
5–1	Water Storage Tank—Highmore	1.545	1.434	1.433	(0.108)	(7)
5–1A (1)	Water Storage Tank—Onida	0.471	0.395	0.400	(0.075)	(16)
5–1A (2)	Water Storage Tank—Okobojo	0.381	0.338	0.333	(0.048)	(13)
5–1A (3)	Water Storage Tank—Agar	0.422	0.391	0.385	(0.037)	(9)
5–1A (4)	Water Storage Tank—Gettysburg	0.952	0.814	0.808	(0.144)	(15)
5–2 (1)	Water Storage Tank—Mac's Corner	460	573	561	0.101	22
5–2 (2)	Water Storage Tank—Rezac Lake	438	493	499	0.060	14
5–2 (3)	Water Storage Tank—Collin's Slough	254	393	410	0.160	63
5–2A (1)	Water Storage Tank—Ames	300	378	([6])	([7])	([7])
5–2A (2)	Water Storage Tank—Cottonwood Lake	800	696	([6])	([7])	([7])
5–2A (3)	Water Storage Tank—Wessington Springs	515	491	([6])	([7])	([7])
6–1	SCADA & Controls	([7])	([7])	([6])	([7])	([7])
	Totals	99.247	91.59	75.472	(3.911)	(4)

[4] Contract budget is determined by Mid-Dakota's estimate for the contract at the time of bidding.
[5] A significant portion of cost increases are attributable to the placement of additional users as construction proceeds.
[6] In progress.
[7] Not applicable.

As is evident by the foregoing table, Mid-Dakota has been very successful in containing Project costs. Currently the construction of major Project components are approximately 4 percent under budget, providing an estimated saving of over $3.91 million. The savings are an example of sound engineering, good management and advantageous bid lettings. While we can't guarantee future contract bid lettings will continue to provide the level of savings currently experienced, we do think it speaks well of the Mid-Dakota Project and how we've managed Project funding to date.

Additionally, Mid-Dakota is keeping in close contact with the City of Huron, SD (population 11,893) regarding potentially serious EPA water quality violations anticipated with the implementation of the Safe Drinking Water Act (SDWA) enhanced surface water rules. Engineers who have analyzed the current drinking water source for Huron (James River) have concluded that the City will not be able to treat the current James River source without very significant and costly upgrades to their existing treatment facilities. Further the engineers have concluded that without these upgrades or switching to a new source i.e., Mid-Dakota, the City will be out of compliance with the Disinfection and Disinfection by-products rule D/DBP to be implemented in 2003. Huron is located at the East end of the Mid-Dakota Project (Mid-Dakota is being built in a general West to East manner) and is currently Mid-Dakota's largest contracted user. It is anticipated that Mid-Dakota will be in a position to connect to Huron in time to remedy the potential EPA non-compliance issue faced by Huron.

CLOSING

Mid-Dakota is very aware of the tough funding decisions that face the Energy and Water Appropriations Subcommittee and we do not envy the difficult job that lies ahead. We strongly urge, the Subcommittee to look closely at the Mid-Dakota Project and recognize the dire need that exists. Consider the exceptionally high level of local and State support. And lastly our readiness, our credibility and our ability, to proceed.

Again, we thank the Subcommittee for its strong support, both past and present.

PREPARED STATEMENT OF THE PERKINS COUNTY RURAL WATER SYSTEM, INC.

PROJECT HISTORY

History of this project goes back to 1977 when a group of farmers in Perkins County were contacted by Southwest Pipeline Project in North Dakota if they would be interested in obtaining water to serve Perkins County. At that time, approxi-

mately 100 farms and ranches and the Towns of Lemmon and Bison were interested, so Perkins County was included in their feasibility study.

In November of 1992, Southwest Water Pipeline Project had grown to the point that Perkins County was contacted about receiving water from the project and to be included in the engineering design work. A committee of interested landowners and representatives from the two incorporated towns were organized through the Perkins County Conservation District. From this committee, nine directors volunteered to serve on a board to study the feasibility of rural water for the county. In March of 1993, Perkins County Rural Water System, Inc. was organized as a non-profit corporation. Two grants were obtained from the South Dakota Department of Environment and Natural Resources for $50,000 each to do a feasibility study. At the same time, the Directors were able to acquire good intention fees from rural landowners, State land, Federal land, and the two towns totaling $28,500 to cost share the State money on a 80–20 share basis.

A feasibility study was conducted for Perkins County Rural Water by KBM, Inc. of Grand Forks, North Dakota and the Alliance of Rapid City, South Dakota in 1994. In the 1995–1996 South Dakota legislature, we obtained State authorization and appropriations of $1 million. This money was used to up-size the pipe in North Dakota for our capacity and for administration cost of Perkins County Rural Water. We have signed a contract with the North Dakota State Water Commission to deliver 400 gpm to the border. We have signed contracts with both towns to be the sole supplier for their water systems. We have had a very good response from the rural farmers and ranchers in that 50 to 60 percent have signed and paid for water contracts delivered to their farmstead. We have also signed a contract with the Grand River Grazing Association that grazes cattle on U.S. Forest Service land.

In the fall of 1999, we received Federal authorization with the 106th Congress for a 75 percent grant of $20 million. Due to the fact it is indexed back to 1995, that amount has grown to $28 million. In 2002, we received our first appropriation of $3.2 million. Appropriations for 2003 were passed out of committee in February in the amount of $4.3 million. With the appropriations for 2002 and 2003, we will be able to hookup approximately 45 rural users, install a seven pump station and hookup at the border to start delivering water to our customers. Our request for 2004 is $5.0 million. With this money, we will be able to deliver water to both towns and put them on line the fall of 2004. These hookups are very essential to our corporation since they will be our two largest customers and will provide quality water for the first time for either municipality.

PROJECT LOCATION AND DESCRIPTION

Perkins County Rural Water System, Inc. (PCRWS) would provide potable water to approximately 300 farms and ranches and two towns, Lemmon and Bison, in Perkins County, South Dakota. The system will serve rural users and provide bulk water to Lemmon and Bison. Currently the only two existing water systems in the project area are the municipal supply systems for the towns of Lemmon and Bison.

When constructed, PCRWS would be the first rural water system in Perkins County.

The purpose of PCRWS is to create a water distribution network to deliver treated water to rural subscribers, who currently rely upon well water of variable quality and quantity. Both Bison's and Lemmon's water currently has high concentrations of sodium and sulfates of which recommended limits are consistently exceeded. The implementation of this project would ensure a reliable supply of water to rural residents that meet the water quality standards of the Safe Drinking Water Act.

The proposed primary water source will be buying bulk water from Southwest Water Authority of southwestern North Dakota. They obtain their water from an intake on the Missouri River and move it to a treatment plant at Dickinson, North Dakota. It is then piped to the border for PCRWS. The proposed system will include approximately 550 miles of distribution pipe, 4–5 booster pumps, and 2–4 supply tanks.

SPONSORS

The Perkins County Rural Water System, Inc., a non-profit corporation consisting of nine directors from three districts, sponsors the project. The money for the project is available at a 75 percent Federal grant, 10 percent State grant, and 15 percent local match. The 75 percent Federal grant will be from the Bureau of Reclamation, the lead Federal agency for the project. The State funds will be administrated through the South Dakota Department of Environment and Natural Resources. The consumers of PCRWS, plus a loan from the State of South Dakota or U.S. Department of Agriculture, Rural Development, will provide the 15 percent local money.

KBM, Inc. of Grand Forks, North Dakota, and The Alliance of Rapid City, South Dakota is under contract to perform the engineering services for the project.

WATER SOURCE ALTERNATIVES

The proposed water source is a bulk supply of water treated and delivered by Southwest Water Authority. Line capacity for delivery has been or will be paid by PCRWS to deliver 400 gallons per minute to the border of South Dakota.

Other alternatives that were considered are water from deep-water wells and water from Shadehill Reservoir, a Bureau of Reclamation project. Since both of these sources were very high in sodium and total dissolved solids (TDS), treatment would be accomplished by reverse osmosis. Raw water would have been blended with treated water to obtain the quantity needed. A third alternative would have been a combination of Southwest water and a treatment plant. All alternatives were rejected because of the added expense to operation and maintenance of the system.

WATER TREATMENT FACILITIES

Water will be treated at the Dickinson water treatment plant in Dickinson, ND. The water treatment plant has expanded from 6 million gallons per day to 12 million gallons per day and has also turned management over to Southwest Water Authority within the last 2 years. The current plant uses a conventional lime softening process to treat the water. Chloramines are added at the Dodge pumping station and the rest of the treatment takes place in the Dickinson treatment plant.

BENEFITS OF THE PROJECT

PCRWS will provide a clean, safe domestic water supply to users in Perkins County. Currently, rural residents obtain water from shallow water wells whereas the towns obtain their water from deep-water wells in the Fox Hills aquifer. Water quality in the shallow wells is high in sodium and TDS. Water from the deep-water wells is high in sodium, fluoride, and sulfates. These chemicals are either at or above recommended levels set by the EPA. By buying treated water from an existing water system, the towns can save money and still comply with the rules and regulations set by the Safe Drinking Water Act and the State of South Dakota.

PERMITS AND ENVIRONMENTAL REQUIREMENTS

Final report of Class I Cultural Resources Research and Survey Design Plan has been completed. Presently the draft of the Environmental Assessment has been completed and a Finding of No Significant Impact (FONSI) was issued and signed on February 3, 2003. The Final Engineering Report along with the Environmental Assessment are currently in Office of Management and Budget and will be distributed to Congress in a few weeks. Utility permits to occupy State and county rights of way have been acquired and right of entry from private landowners for the first two phases are also being obtained. Special use permits will be required for any part of the line that crosses U.S. Department of Agriculture, U.S. Forest Service land and will be issued shortly.

PROPOSED CONSTRUCTION SCHEDULE

Construction of the PCRWS will be delayed till the summer of 2003 after reports and assessments have been approved by the Bureau of Reclamation. Work on the Lodgepole project is on going and construction hopefully will be started and finished this year. Construction in the City of Lemmon and the Town of Bison is also planned for this summer. Construction of the entire project is dependent on federal funding levels per year, but the project could be completed in 5–6 years.

Maps showing the construction phases and the total project plus project costs follow. Table 1 shows the total project construction costs, table 2 shows final O&M costs for the total system.

WORK PLAN FOR FISCAL YEAR 2004

Perkins County Rural Water System, Inc. (PCRWS) budget is broke down into three parts which includes Administration, Construction, and Non-Project. Administration includes the day to day operation of the System, Construction is broke down into several items of construction for 2003, and Non-Project is the money spent on Federal lobbying.

Administration budget includes:

—Income including BOR grant funds, water sales, interest.

—Expenses include: Office administration; Utilities for both office and pumps (O&M budget will be drafted later); Payroll including all of the Office Managers wages, and 48.5 percent of General Managers wages; Water purchases for the last 3 months of 2003 for people hooked up by fall; Office equipment for office use.

Construction budget includes:

—Income totally from BOR (based on $1.9 million carryover and $4.3 million appropriations).

—Expenses including: Advertising for bids, easements, construction schedules; Legal fees for contracts, bid openings; Engineering for plans and specs, bids, contracts, inspections; Construction fees include:

—a. Lemmon infrastructure @ $720,000.00,

—b. Bison infrastructure @ $50,000.00,

—c. Combination of Phase I and II includes (page 79 in the FER):

—1. Rural pipeline (Lodgepole) consisting of all sizes, approximately 70 miles;

—2. Border vault;

—3. Pumping Station #1;

—4. Three phase transmission line;

—5. Partial mainline to Bison;

—d. North Dakota State Water Commission Payment.

—Wages for construction will include all of O&M Manager's and 48.5 percent of General Manager's.

Non-Project budget includes:

—Income from hook-up fees and building rental fees.

—Expenses include directors and managers costs for work and travel to Washington, DC.

Also included is a worksheet containing the breakdown of items included in the three budgets.

The work plan for Perkins County Rural Water is as follows:

Administration

Income will include water sales for the fourth quarter, October thru December ($16,600), interest income ($40,000), hookup fees ($7,400) and $7,500 from Bureau of Reclamation. Advertising, Legal fees, Insurance, Accounting Fees, Mileage Reimbursement, Meals, Dues and Fees, Office supplies, Repairs, and Telephone is based on past budgets and will total to $25,250.00. Utilities, for the pumps, are based on electricity needed to pump water for 3 months for a price of $3,000.00. Depreciation is figured on equipment inventory, building, and vehicle for a total of $4,000.00 (not included is depreciation of pipeline, etc.). Payroll for this budget includes all of the Office Manager's wages and benefits ($22,712.82), and 48.5 percent of General Managers ($42,391.20×48.5 percent = $20,559.73). Water purchases are based on water sold for last quarter of 2003 for rural hookups plus Bison. Office equipment consists of copier ($5,000.00), computer for telemetry and O&M management ($3,000.00), software including Arc View, Telemetry, misc. ($4,000.00) for a total of $12,000.00. Building includes heat, electric, taxes and insurance ($3,000.00, vehicle includes tax and license, maintenance ($2,750.00) and a contingency of ($8,820.00).

Construction

Construction income will come totally from the BOR at $5,732,500.

All office items including advertising, legal fees, office supplies, and telephone is a percentage of the total that we believe will be used strictly for construction, amounts to $13,000. Engineering is based on an estimate from KBM, Inc of $180,000 for 2003. The use tax is the 4 percent State tax applied to the engineering fees and will be $7,200 based on $180,000. Wages are calculated using 100 percent of the O&M Manager and 48.5 percent of the General Manager's salary. Contingency is 4 percent of the total.

Construction is broke down in the following table:

Payment to NDSWC	$946,000
Lemmon Infrastructure	720,000
Bison Infrastructure	50,000
Border Vault	100,000
Three Phase Transmission Line	225,000
Pumping Station #1	500,000
Lodgepole Distribution	1,800,000
Partial Main Transmission Line to Bison	907,700
TOTAL	5,248,700

Non-Project

Non-project is money that is used for lobbying for funds from the Federal Government. Income for this budget will not come from the BOR. Income will include $12,000 from hookup fees and $2,400 from rental fees in the System's building.

Office budget will be mileage reimbursement ($500), office supplies, ($500), and telephone ($100). Meeting expenses for both the directors and manager is money spent on time in Washington, DC ($11,000). This includes the possibility of three trips to Washington for up to three directors plus the manager. Three percent of the manager's wages have been allocated for this item equaling $1,300. Contingency is set at $1,100 (7 percent).

Conclusion

It is anticipated that the work proposed in this document will require 12 months to complete. This time frame could lengthen considerably, dependent upon future appropriations from the U.S. Federal Government to the project.

A full budget is included at the end of the report broke down in the three categories. Also included are the phase projections through 2007.

LETTER FROM THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Los Angeles, California, March 27, 2003.

The Honorable PETE V. DOMENICI,
Chairman, Committee on Appropriations, Subcommittee on Energy and Water Development, U.S. Senate, Washington, DC 20510.

DEAR CHAIRMAN DOMENICI: The Metropolitan Water District of Southern California (Metropolitan) is pleased to submit the following testimony for the record, regarding programs contained in the U.S. Bureau of Reclamation's, the Department of Energy's and the Army Corps of Engineers' fiscal year 2004 budgets for your Subcommittee's hearing record.

Metropolitan strongly recommends your approval of a Reclamation fiscal year 2004 budget that includes $30 million in funding for the CALFED Bay-Delta Program. In addition, Metropolitan urges your support for the San Joaquin Water Supply and Exchange Program, as part of the reauthorization of the California Bay-Delta Act.

We ask for your support for additional Federal funding for Reclamation's Colorado River Basin Salinity Control Program (Salinity Control Program). We request that Congress appropriate $17.5 million for implementation of the Title II—Basinwide Program, an increase of $8.302 million from the President's request to ensure water quality protection for this important source of water supply to Arizona, California, and Nevada. We support funding of the Grand Valley and the Paradox Valley Units of the Title II, Salinity Control Program at the President's requests of $752,000 and $2.102 million, respectively. In addition, we support funding of the Colorado River Water Quality Improvement Program at the President's request of $450,000. High salinity from the Colorado River continues to cause significant impacts to residential, industrial and agricultural water users. Furthermore, high salinity adversely affects the region's progressive water recycling programs, and is contributing to an adverse salt buildup through infiltration into Southern California's irreplaceable groundwater basins. The Salinity Control Program has proven to be a very cost-effective approach to help mitigate the impacts of higher salinity.

In addition, we support funding of the Title I, Salinity Control Program at the President's request of $11.25 million to maintain the Yuma Desalting Plant (Plant) and the saline water Bypass Drain, and ensure that Mexican Treaty salinity requirements are maintained. Although the Colorado and Gila Rivers experienced above-normal runoff during the 1980's and 1990's, storage in the Colorado River system reservoirs has now dropped to a 30-year low. With declining reservoir levels, operation of the Plant is needed to reduce the amount of drainage water that is bypassed and not credited toward Mexico's Treaty entitlement delivery. As such, it is essential that Plant design deficiencies be corrected promptly as a step toward its efficient operation.

Further, we also ask that you support the reauthorization of the Water Desalination Act of 1996 [Public Law 104–298, Section 8], which Metropolitan supported in the fiscal year 2003 budget process, as well as increasing the President's fiscal year 2004 budget request from $775,000 to $4 million. Federal support of desalination is vital to realizing technological advances leading to reduced costs, improved efficiency and cost-effectiveness in order for this resource to become an important water supply program for many regions of the United States.

Metropolitan also requests your support for Reclamation's Endangered Species Recovery Implementation program at the President's request of $13.371 million. This activity develops and implements projects for the stewardship of endangered, threatened, proposed, and candidate species that are resident or migratory to habitats within the Colorado River Basin as well as other regions of the western United States. In addition, Metropolitan urges your support for the Lower Colorado River Operations Program at the President's request of $13.822 million. This program includes:

—Protection of endangered species, ecological restoration, and riparian restoration research along the lower Colorado River,

—Development of the cost-shared Arizona-California-Nevada/federal Lower Colorado River Multi-Species Conservation Program to provide future Endangered Species Act compliance, and

—Implementation of the Secretary of the Interior's responsibilities for administering federal laws and court decrees related to operation of Reclamation's reservoirs.

California has developed a Colorado River Water Use Plan (California Plan) to provide a framework for the agencies that rely on river water to reduce diversions to within California's 4.4 million acre-foot per year normal apportionment. Successful implementation of the California Plan is vital to the water supply reliability of the State of California, and is critical to the Colorado River interests of the six other Colorado River Basin States and Mexico. Two water management reservoirs near the All-American Canal, an 8,000 acre-foot reservoir to the east of the Imperial Valley and a 3,000 acre-foot reservoir on the western side of the Valley, would help facilitate the implementation of the California Plan and could be of significant benefit to the other Colorado River Basin states and Mexico for improved river operations and water deliveries. Reclamation funding of $6.9 million is needed in fiscal year 2004 in order to complete the environmental impact analysis and, if a decision is made to move forward, the initial stage of project design. Reclamation has been funding this work under the Colorado River Front Work and Levee System. As such, Metropolitan requests that the Subcommittee augment Reclamation's funding for this activity.

Projects funded under Title XVI of the Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102–575) and the Reclamation Recycling and Water Conservation Act of 1996 (Public Law 104–266) will greatly enhance Southern California's water supply reliability and the environment through effective water recycling and recovery of contaminated groundwater. Additionally, Title XVI allows Reclamation to conduct much needed water recycling and desalination research programs, as well as, studies of potential water recycling projects. Funding in the fiscal year 2004 budget for previously unfunded projects, as well as the continued support for previously funded projects, is a positive step toward realizing regional water supply reliability. The Bureau of Reclamation's budget request for research into the technologies and science of water recycling is another vital step toward making water reuse a viable alternative for communities faced with limited water supplies. Metropolitan urges your full support for the $12.7 million for Title XVI.

Metropolitan desires your support for the funding level of $6 million, necessary for the Soil and Water Remediation-Moab Project associated with radioactive uranium mill tailings in Moab, Utah. The President's Fiscal Year 2004 Budget includes $2 million for maintenance of the Moab Tailings Project which would be used for site maintenance and completion of the Environmental Impact Statement (EIS) process. These funds would maintain the status quo, but they are not sufficient for continued work to remove surface and groundwater contamination and implement a reclamation plan. The President's Fiscal Year 2004 Budget proposal is not designed to conduct the necessary remediation work. The Colorado River adjacent to the site has been negatively affected from site-related contamination, mostly due to ground water discharge. This Project is essential for protecting the quality of Colorado River water. In addition to the $2 million in the President's Budget, Metropolitan supports an additional $4 million, as requested by Governor Leavitt of Utah, to accomplish the following: operation and maintenance of the interim groundwater pump and treat system; completion of groundwater studies; completion of site stabilization projects; and initiating design and onsite work for remediation.

The Army Corps of Engineers' (Corps) comprehensive civil works program has the capability to contribute to the social, economic, and environmental well being of California. Metropolitan is primarily interested in the Corps' environmental restoration studies and projects that address the needs of the Bay-Delta Estuary. The President's proposed fiscal year 2004 budget includes numerous programs in the Corps' South Pacific Division, which includes California. Several ecosystem restora-

tion studies and projects specifically address significant habitat issues at various locations in the Bay-Delta watershed. Corps programs that will contribute to the long-term Bay-Delta solution include environmental restoration studies in the Sacramento and San Joaquin River watersheds, habitat conservation and mitigation elements of flood damage prevention projects, and ecosystem restoration programs. Metropolitan urges Congress to fully support these Corps programs as the fiscal year 2004 Federal appropriations process moves forward.

We look forward to working with you and your Subcommittee. Please contact Metropolitan's Legislative Representative in Washington, DC, if we can answer any questions or provide additional information.

Very truly yours,

RONALD R. GASTELUM,
Chief Executive Officer.

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA RECOMMENDATIONS FOR FISCAL YEAR 2004 APPROPRIATIONS

Appropriations Bill	President's Budget	MWD Recommendation
U.S. Bureau of Reclamation:		
California Bay-Delta Ecosystem Restoration	$15,000,000	$30,000,000
Colorado River Front Work and Levee System, Water Management Reservoirs near the All-American Canal	155,000	6,900,000
Colorado River Basin Salinity Control Program—Title II:		
Basinwide Program	9,198,000	17,500,000
Grand Valley Unit	752,000	752,000
Paradox Valley Unit	2,102,000	2,102,000
Colorado River Basin Salinity Control Program—Title I	11,250,000	11,250,000
Colorado River Water Quality Improvement Program	450,000	450,000
Desalination Research and Development Program	775,000	4,000,000
Endangered Species Recovery Implementation	13,371,000	13,371,000
Lower Colorado River Operations Program	13,822,000	13,822,000
Title XVI Water Reclamation and Reuse Program	12,700,000	12,700,000
Water Conservation Field Services Program	[1] 500,000	[1] 500,000
Department of Energy: Removal of Radioactive Tailings in Moab, Utah	2,000,000	6,000,000
U.S. Army Corps of Engineers: South Pacific Division	.....	([2])

[1] For Metropolitan Water District.
[2] Support Corps programs.

DEPARTMENT OF ENERGY

PREPARED STATEMENT OF BOB LAWRENCE & ASSOCIATES, INC.

HIGH TEMPERATURE SUPERCONDUCTIVITY R&D

Mr. Chairman and Members of the subcommittee. My name is Bob Lawrence, I am President of Bob Lawrence and Associates, Inc., of Alexandria, Virginia. I appreciate the opportunity to present this testimony, today, on the important subject of Superconductivity. I am here to request an appropriation of $49 million for the Department of Energy program for fiscal year 2004.

Background

Of all the technologies which are emerging today, Superconductivity is arguably one of the most promising in terms of dramatic, potential enhancements to American infrastructure and national benefits. Laboratory results are now moving into government-industry partnerships aimed at accelerating superconducting products into the electrical marketplace with concurrent, dramatic, energy efficiency and environmental improvements.

Superconductivity is the property of a material to conduct unusually large quantities of electrical current with virtually no resistance. Since the middle of the century, researchers have known that certain ceramic materials show superconductive properties when they approach a temperature near absolute zero, or the temperature of liquid hydrogen and liquid helium. Practical applications of these materials are difficult, however, since they are characteristically very costly to make, very brittle in nature, and prohibitively expensive to cool to the required, very low temperature.

In 1986, a new class of ceramic materials was discovered which showed superconductive properties at temperatures up to 34K. Since that time, improvements have produced superconducting materials at the temperature of liquid nitrogen, or 72K. These "high temperature" superconductive (HTS) materials have generated great excitement since the projected costs of applications have dropped by orders of magnitude, and first viable products appear to be within reach.

THE PROGRAM

Today, a number of HTS-based pieces of electrical equipment are at the prototype stage with capable manufacturing entities intimately involved. Early candidates for commercial products include Transformers, Electric Motors, Generators, Fault Current Limiters, and underground Power Cables. Later in the commercialization process, replacements for overhead transmission lines are also foreseen; however, this will not be an early application. To enhance and accelerate the prospects for early commercialization of HTS products, the Department of Energy has developed a vertically integrated program in which product oriented teams are focused on the development and implementation of HTS equipment. Under the title of the Superconductivity Partnership Initiative (SPI), these vertically integrated teams typically each consist of an electric utility, a system manufacturer, an HTS wire supplier, and one or more national laboratories. Supporting these vertical teams is a Second Generation Wire Initiative, in which development teams are exploiting research breakthroughs at Los Alamos, Argonne, and Oak Ridge National labs that promise unprecedented current-carrying capabilities in high-temperature superconducting wires. Since superconducting wire is the main component of all superconducting cables, products and systems, the price drop projected by the Second Generation technology is highly significant and important to successful commercialization.

Transformer development is being carried out by the team of Waukesha Electric Systems, Intermagnetics General Corporation, Rochester Gas and Electric, Rensselaer Polytechnic Institute, and the Oak Ridge National Laboratory. This team has conducted a series of reference designs concentrating mostly on a 30-MVA, 138-kV/13.8kV transformer which is representative of a class expected to capture about half of all U.S. power transformer sales in the next two decades. According to industry experts, Japan and Europe are somewhat ahead of the United States in transformer development.

The United States HTS electric motor team is headed by Reliance Electric with American Superconductor Corp as the HTS coil supplier and manufacturer. Also on this team are Centerior Energy (a utility company) and Sandia National Laboratory. "In February 1996, Reliance Electric successfully tested a four-pole, 1,800 rpm synchronous motor using HTS windings operating at 27-K at a continuous 150kW output. The coils . . . achieved currents of 100A . . . , 25 percent over the initial goal of 80 A." This program has now been extended to "develop a pre-commercial prototype of a 3.7MW HTS motor". The demonstration of this motor will be an important milestone in the commercialization process, since it will provide a measure of efficiency, reliability, and projected costs and benefits.

Generator efforts in the United States have recently begun with a team headed by General Electric. The efforts here, again, appear to be behind those in Japan. In Japan, funds expended on HTS design, development, and demonstration exceed those in the United States. This Japanese, heavily funded effort involves 16 member organizations with representation from the electric utilities, manufacturers of electric power equipment, research organizations, manufacturers of HTS wire and tape, refrigeration and cryogenic suppliers, and independent research institutes.

Fault Current Limiters represent a new class of electric utility equipment with many attractive properties. This type of equipment may, in fact, be a market leader, since its properties appear to provide substantial potential cost savings to electric utilities as well as containing power outages. This type of equipment is only possible using superconducting technology.

Exciting developments have taken place in the field of underground HTS cables for transmission and distribution. In the United States, two teams are pursuing two different technical concepts, but each team is led by a powerhouse electrical cable manufacturer; Pirelli North America, and Southwire Co. First design cables are now under test in practical applications. Worldwide, about 10 superconducting electric power cable demonstrations are now underway, in various stages of completion.

The Benefits

Dramatic cost and energy savings are projected when the candidate systems and products from superconducting technology are fully implemented, with incremental benefits accruing from the time of technology readiness and commercial introduction to the time of full market penetration. When fully implemented into the electric gen-

eration and utilization sectors of our economy, superconducting technology is expected to save $8 billion per year in retail value of presently lost electricity, lost due to transmission and distribution. An additional $8 billion per year can be saved with the installation of superconductive transformers and electric motors. Yet another $1 billion or so can be saved by full implementation of HTS generators. This totals fully implemented benefits of $17 billion per year from full implementation of HTS technology in presently envisioned equipment. Oak Ridge National Laboratory (ORNL) experts and studies carried out by Energetics, Inc. indicate that HTS underground cable savings would be in the range of 125,000 kWhr per mile, per year. At the present average rate of 6.89 cents per kWhr, this corresponds to retail level monetary savings of $8,612.50 per mile per year. These savings will flow directly into reductions in taxpayer electric bills, under a competitive electricity delivery environment.

National Security

Above ground transmission lines are vulnerable to terrorist attack, as well as severe weather. High Temperature Superconductivity would allow transmission lines to be placed underground with very large capacity increases per cross section. This also allows for a more environmentally effective use of the surface land. Higher national security and better environmental posture: a good combination.

There are Defense applications of this technology, enabling in nature, applying to directed energy weapons. Exact applications are sensitive in nature, but it is important to note that the benefits from success in this technology will apply to many cross sections of the American economy and infrastructure.

In conclusion, Mr. Chairman, I thank you for the opportunity to present this testimony. Major efforts in this technology are now underway in China, South Korea, Japan, and a number of European countries, as well as the United States. It is very important that we make every effort to be ahead of the rest of the world in this technology, and for that reason, I ask that the Committee provide an appropriation of $49 million for the Superconductivity R&D program for fiscal year 2004.

ELECTRIC TRANSMISSION RELIABILITY AND TECHNOLOGY NEEDS

I am here, today, to request an appropriation of $18 million for fiscal year 2003 for Transmission Reliability, a subject area found within the Electric Energy Systems program of the Department of Energy. Within that amount, I request that you designate $4 million to continue the Aluminum Matrix Composite Conductor program which was started in fiscal year 2002. This program has the promise of evolving a new family of transmission line conductors which will carry twice the capacity of today's conductors, greatly reducing the need for new transmission rights-of-way. This will be, clearly, of tremendous benefit to our Nation.

Since 1974, our country has confronted a series of alerts and crises involving energy. In the early pursuit of alleviating these crises, natural gas, coal, and electricity were examined as possible alternatives to oil. However, in the ensuing years, there has been a natural gas crisis, a natural gas bubble, another tightening of natural gas supply, wide swings in the prices of oil-based products, and now, a strong reminder in the electrical sector that our Nation's electricity generation and delivery system is in desperate need of upgrading and repair. Moreover, a new approach to planning for future electric generation and, most importantly, the delivery system, is critical.

Numerous recent articles and reports describe the situation from a variety of perspectives. Clearly, there is no "National Grid" to accept and deliver electricity. Rather, our present system evolved from a patchwork of local systems designed to accept local generation and provide it to local customers from a regulated, wholly owned, vertically integrated structure. Today, the national thrust is to move this system into a configuration wherein merchant power generators sell to a variety of widely situated customers on a competitive basis, and the power is delivered through a reliable and affordable transmission/distribution network. How this situation will ultimately evolve remains conjecture; however, it is certain to involve a confluence of legislation, regulations, technology advances, and societal changes before it is all over.

The Nation's present patchwork system clearly requires upgrading with a more global design based on a new system of planning and financing. The U.S. electricity industry is in the midst of a transition from a structure dominated by vertically integrated utilities regulated primarily at the State level to one dominated by competitive markets. In part because of the complexities of this transition, planning and construction of new transmission facilities are lagging behind the need for such grid expansion.

Electricity, when transmitted, flows over all available paths to reach the customer and it cannot be easily directed in one particular way. Major problems are occurring as new merchant power plants are being built, but increased transmission capacity is not being installed. In 2000, normalized capacity was 17 percent lower relative to demand than it had been a decade earlier, and the projection for 2009 shows a further decline of another 12 percent.

Upgrades: Replacements, Additions, and Siting

Transmission rights-of-way are rarely abandoned. Rather, existing conductors are replaced, often with wires capable of handling larger power flows, or towers and conductors are replaced. Due to the problems associated with constructing new transmission lines, it is important to examine the possible options for increasing the transmission capability on present sites and making maximum use of existing transmission systems through upgrades. When feasible, upgrades are an attractive alternative, because the costs and lead times are less than those for constructing new transmission lines.

The most obvious but most expensive method for alleviating the thermal constraints on a line is to replace the lines with larger ones (conductors) through "restringing" or to add one or more lines, forming "bundled" lines. This approach requires consideration of the tower structures that support power lines.

Other typical cost estimates for restringing transmission lines with larger conductors are:

—60 kV line, to 397.5 kcmil: $40,000 per mile,

—115 kV line, to 715.5 kcmil: $80,000 per mile,

—230 kV line, to 1,113 kcmil: $120,000 per mile.

"Long-distance power transmission can be essential in a deregulated system, by increasing competitive offers for customers," said Ken Rose, senior economist with the National Regulatory Research Institute in Columbus, Ohio. From suburbs to farms, the giant towers and the drooping lines they support are loathed and opposed. "It's easier to site a generation plant than to build a 20-mile transmission line through people's backyards," said Mike Calimano, vice president for operations of the New York Independent System Operator, the State's power grid manager. "We haven't built any [transmission lines] from Canada or the West since 1978, and that was a war," said Minnesota State Attorney General Mike Hatch. "We had highway patrols trying to keep the peace. It was awful then," and will be again as new power-line projects go forward, he warned.

The long-distance transmission lines, strung on 150-foot-tall steel towers spaced at quarter-mile intervals, face particularly strong local opposition. Citizen protests have also stalled plans to build power plants, but outrage soars when it comes to the high-voltage wires.

Aluminum Matrix Composite Conductor Technology

This advanced transmission line conductor is expected to carry twice as much electricity, per line, as present conductors, allowing for transmission upgrades without needing additional land rights-of-way. The program was begun in fiscal year 2002 with $4 million, and is structured to be a 3-year effort at $4 million per year. Substantial cost sharing from both industry and utilities is occurring. Continued funding would allow industry, Oak Ridge National Laboratory, and the Department of Energy to develop and demonstrate a new class of overhead conductors through laboratory tests and field trials. Under the proposed program, medium and large size constructions of composite conductors will be developed and tested in preparation for the field trials. Accessories tailored for each conductor construction will also be developed and tested. The testing will include a low-voltage outdoor test span operated by ORNL that can continuously cycle a 1,200-foot multispan line to high-temperature operation.

Multi-year field trials will demonstrate medium and large size conductor performance under different conditions, such as various voltages, mechanical loading conditions, and operating conditions. WAPA will host the first field trial in fiscal year 2002 under this program. Field trials require performance monitoring, which spans more than 1 year. A number of the proposed laboratory tests require months to carry out. Thus it is important that the proposed program be viewed with respect to the overall multi-year plan.

Objectives of the Program in 2003 and 2004

The level of effort in fiscal year 2003 will be of slightly less magnitude than the effort that was executed in fiscal year 2002 due to a funding level of $3 million in fiscal year 2003 as opposed to the $4 million in fiscal year 2002.

The technical objectives in fiscal year 2003 and fiscal year 2004 are a continuation of 2002 activities as follows:

—Monitor the WAPA field trial with the 795 kcmil ACCR over a minimum of 1 year, and preferably 2 years.
—Complete the laboratory testing of the 1272 kcmil and 598 kcmil/TW ACCR. The testing is aimed at understanding and modeling the conductor mechanical and electrical performance.
—Complete the thermal cycling of 795 kcmil ACCR at ORNL. Install and test the 1272 kcmil and 598/TW conductors on the ORNL test line. The objective of this task is to evaluate the performance of 795, 1272 and 598/TW and accessories in operation at elevated temperature. The test can simulate in 3 months the emergency current conditions that would be expected over 40 years of operation.
—Install and monitor the 1272 kcmil in a new field trial with a utility to be determined. The objective of this field test is to demonstrate the installation, operation, and reliability of 1272 family of conductors for use on 230kV–500kV applications.
—Install and monitor the 598 kcmil/TW with in a field trial with a utility to be determined. The objective of this field test is to demonstrate the installation, operation, and reliability of high efficiency composite conductors.
—Evaluate system network impacts of conductor upgrades.
—Establish national perspective regarding potential of new conductors.
—Draft industry standards necessary for commercial introduction.

At this point in time, a comprehensive study has been completed by the Department of Energy on the National Transmission Grid System. The Study was completed in December 2001. Since that time, the Office of Management and Budget has refused to fund the results and objectives of the study, even though it is comprehensive in nature and could form the basis for Congress to appropriate needed funds to fix our Nation's critical grid problems. This action is unfortunate, and clearly not in the Nation's best interest.

We ask the subcommittee to restore Transmission Reliability program to the funding level that it had in fiscal year 2002—$18 million.

COST/BENEFITS OF GEOTHERMAL ENERGY R&D

I and my firm, have been working with the Department of Energy's Geothermal program since 1990, and during the past 13 years, we have seen many positive changes in the program which are helpful to the industry and to our country as a whole. I come before you, today, to request $37 million for the program for fiscal year 2004, of which, $4 million would be applied to the GeoPowering the West portion of the Program.

Geothermal electric generation, at 16 billion Kw/hrs per year, is the largest contributor to delivered electricity from Renewables except for Hydro generation. For the past several years, the Geothermal Technology program has been held back at budget levels below $30 million. This has been harmful to the industry which is dependent upon the technology evolving from the DOE programs to develop new and ever more difficult resources. During the fiscal year 2003 appropriations process, the Senate funded the Geothermal program at $37 million. Although the Conference only funded the program at $30 million, it was certainly a step in the right direction. It is consummately in the national interest to increase the funding level of this program to $37 million annually to accelerate increased geothermal use for energy purposes.

At $37 million, last year's Senate level, it gives the Geothermal program the chance to move forward with industry on several fronts. The $7 million additional will actually be closer to $14 million additional, since it is expected to draw an equal amount of industry cost sharing. At the $37 million level, strong programs can move ahead addressing Enhanced Geothermal Systems, where tertiary treated waste water is injected deep into the earth to provide additional needed water to undersaturated geothermal resources. The GeoPowering the West program, addressing 19 Western States, can be strengthened. And most importantly, Cost-Shared Exploratory Drilling, Reservoir Definition, and New Resource Exploration can move forward in areas where it has slowed to nearly a stop. Even at $37 million, the Geothermal program will be the lowest funded of all Renewables, even though the program has been the most successful based on present generation annual levels.

Overview

Cost-shared Department of Energy investments in geothermal energy R&D, starting in the 1970's, have made possible the establishment of the geothermal industry in the United States. Today that industry generates over 16 billion kilowatt-hours per year in the United States, alone. The total, retail value of this electricity exceeds $1 billion per year. The Industry:

—returns over $41 million annually to the Treasury in royalty and production payments for geothermal development on Federal lands;
—supplies the total electric-power needs of about 4 million people in the United States, including over 7 percent of the electricity in California, about 10 percent of the power in Northern Nevada, and about 25 percent of the electricity for the Island of Hawaii (the Big Island);
—employs some 30,000 U.S. workers;
—displaces emissions of at least 16 million tons of carbon dioxide, 20,000 tons of sulfur dioxide, 41,000 tons of nitrogen oxides, and 1,300 tons of particulate matter every year, compared with production of the same amount of electricity from a State-of-the-Art coal-fired plant;
—has installed geothermal projects worth $3.0 billion overseas, mostly in the Philippines and Indonesia.

Near Term Potential

The geothermal industry, with appropriate government R&D support, can provide an additional 600 Megawatts of power in about 18 months. This power will come from:

—Use of tertiary treated wastewater injection (Enhanced Geothermal Systems): 200 MW.
—Implementation of new technologies into old plants, well field upgrades, and turbine replacements: 400 MW.

In addition, direct use increases, through the GeoPowering the West initiative, will provide an additional, near term, 100MW of use for heating, cooling, industrial drying, agricultural applications, and recreational purposes.

This is an additional 700MW of clean, renewable, geothermal energy available within 2 years with appropriate government funding and support, right in the heart of the Western States that presently have the most critical power problems.

Longer Term Potential

The long term potential of Geothermal energy in the United States is estimated to be 25,000 MW of electrical generation and an additional 25,000 MW of direct use. To date, the geothermal industry has made use of only the highest grade geothermal resources in the United States. The keys to realizing the enormous potential of geothermal energy are improved technology to tap resources that can not, at present, be economically developed, and cost shared programs with industry for accelerated implementation of the technology. Substantial investments in R&D by the geothermal industry, acting alone, have not happened and are unlikely, because the developers are uniformly financial entities, with small engineering components, which rely on the technology centered at national laboratories and university institutes for project development and engineering.

Technology Needs

Applied R&D is essential to reduce the technical and financial risks of new technology to a level that is acceptable to the private sector and its financial backers. The U.S. geothermal industry has conducted a series of workshops to determine the industry's needs for new technology and has recommended cost-shared R&D programs to DOE based on the highest-priority needs.

The Geothermal Industry supports the Strategic Plan of the DOE Office of Geothermal Technology. The plan calls for increased spending, quickly reaching $50–60 million per year, a geothermal budget level consistent with that recommended by the President's Committee of Advisors on Science and Technology (PCAST) in their 1997 report. Technical needs include:

Drilling.—Geothermal drilling differs dramatically from oil and gas drilling since the necessary production holes are three times as wide as oil and gas production holes, and they must be drilled through hard, volcanic rock rather than sedimentary soils. Also, because of the high temperatures and corrosive nature of geothermal fluids, geothermal drilling is much more difficult and expensive than conventional oil and gas drilling. Each well costs $1 million to $3 million, and an average geothermal field consists of 10 to 100 or more wells. The drilling technology program continues to show cost-saving advancements.

Exploration and Reservoir Technology.—The major challenge facing the industry in exploration and development of geothermal resources is how to remotely detect producing zones deep in the subsurface so that drill holes can be sited and steered to intersect them. No two geothermal reservoirs are alike. Present exploration techniques are not specific enough, and result in too many dry wells, driving up development costs. The industry needs better geological, geochemical, and geophysical techniques, as well as improved computer methods for modeling heat-extraction strategies from geothermal reservoirs.

Energy Conversion.—The efficiency in converting geothermal steam into electricity in the power plant directly affects the cost of power generation. During the past decade, the efficiency of dry- and flash-steam geothermal power plants was improved by 25 percent. It is believed that geothermal power-plant efficiency can be improved by an additional 10–20 percent over the next decade with a modest investment in R&D.

Reclaimed Water Use for Geothermal Enhancement.—Many potential geothermal resources are not utilized due to insufficient water in the hot zones. Reclaimed water, the disposal of which is an expensive problem for many communities, could be used productively, in many cases, to enhance the geothermal resources, making them more economically viable for local use. In the United States, over 300 western communities each have a potentially useable geothermal resource co-located within 5 miles. The technology which will evolve from this effort could be broadly applicable to these communities and their combined energy and wastewater problems.

GeoPowering the West.—This initiative, now in its third year, seeks to develop, as well as provide information and implement those technologies needed to utilize geothermal resources in the over 300 presently identified "co-located" communities in 19 Western States. Studies now underway may increase the number of communities to over 350. The program is creating partnerships with the subject communities to utilize hot geothermal waters for direct use applications such as space conditioning, industrial drying, agricultural applications, and recreational purposes. Additionally, the program will provide technology needed to explore these resources for generation potential. In the short time that this program has been ongoing, it has played a major role in expanding the number of States with geothermal electric generation potential from four to eight, or a doubling of candidate States. This program is singularly important to the expanded geothermal future of our country.

GeoSciences.—Basic research in the GeoSciences needs to continue at national laboratories, universities, and research institutes to expand and advance the knowledge base in this technology area. Funding the GeoSciences ensures a flow of new, capable, engineers and scientists into this important field as well as expanding the basic knowledge base surrounding geothermal resources and geothermal energy. It is important for this program to continue.

Conclusion

The cost shared, cooperative, research, development, and implementation programs of the Department of Energy's Geothermal program should serve as a model for programs whose purpose is to provide and enhance national benefits, while reaping a return on investment for the taxpayer. The $41 million that the industry returns to various governmental entities in royalties and leases exceeds, annually, the amount that the government invests in the future of the technology. Yet, the future of the technology and the expanded industry is closely tied to these programs. Clearly, the Geothermal research and technology development is an outstanding example of a proper, taxpayer investment. $37 million is required for fiscal year 2004.

PREPARED STATEMENT OF THE SOLAR ENERGY INDUSTRIES ASSOCIATION

Mr. Chairman, members of the committee, I would first like to thank you for the opportunity to address the committee regarding the state of the solar energy research programs sponsored by the Federal Government. Our organization, the Solar Energy Industries Association, represents photovoltaic, concentrating solar power, and solar thermal manufacturers, distributors, contractors installers and component suppliers throughout the United States.

These businesses have experienced a recent growth rate that can only be described as blistering. Our most recent production survey data shows that the world photovoltaics market last year increased by approximately 40 percent above 2001 levels. These growth rates are why U.S. photovoltaic production has doubled since 1996, and quadrupled since 1994. Meanwhile, a project is underway to bring an additional 50 MW clean, reliable Concentrating Solar Power online by 2004. This technology alone will be providing more than 400 MW of power in the United States—enough to power more than 100,000 U.S. homes.

Market success is being further recognized at the polls. A USA Today/CNN/Gallup poll released in May 2001 found that 91 percent of Americans support "investments in new sources of energy such as solar, wind and fuel cells," with only 6 percent opposed. Meanwhile, in a Washington Post/ABC News poll from June 2001 on American's desired solutions to our energy problems, the No. 1 choice across America was "develop more solar and wind power." A 2001 Newsweek poll similarly

found 84 percent of Americans favor increased funding for the development of solar and wind power.

This demand is further spurred by increased performance and decreased costs. DOE research continues to bring the cost of solar systems down markedly even as performance improves, fostering the strong growth of a domestic high-tech manufacturing base. However, we're starting to see a very disturbing trend in photovoltaics. The U.S. photovoltaics market reportedly increased 60 percent last year. Total world manufacturing increased nearly 40 percent. However, U.S. manufacturing barely held steady, losing a great deal of market share, to Japan and the European Union, as can be seen below.

Distressingly similar trends can be seen in the concentrating solar power market, where the "power tower" technology originally developed in collaboration with the Department of Energy is now seeing its commercial debut in Spain's "Solar Tres" project, and in the solar hot water market, where Israel and other countries have seized a commanding lead.

In all of these countries, the potential market is no stronger than that in the United States. Government support, however, is much more robust. In the coming years, we fully expect that increasingly relevant, inexpensive, and high-performance solar technologies will continue their exponential rate of sales growth. The only question is whether the United States will fully harness this engine of environmental benefit, energy security, and high-tech jobs growth, or if we will simply yield to the competition of other countries, losing what was once unassailable market dominance to our competitors. This would be a sad echo of what has already happened with the wind turbine market.

Solar energy's benefits to the Nation are far too numerous to list here comprehensively. However, we cannot mention enough that as a long-lived source of perpetually renewable energy, solar enables us to make more of our energy at home, rather than being forced to acquire it overseas or from volatile fuel markets. By its modularity and simplicity, it can provide quick answers to grid congestion or supply inadequacy problems, while sidestepping environmental and NIMBY issues. The high coincidence of solar panels' peak output and daily peak demand cycles makes them a particularly attractive solution for areas that experience load pockets or seasonal demand spikes, avoiding the use of the dirtiest and least efficient conventional generators. Finally, solar will undoubtedly be one of the critical cornerstone technologies of the hydrogen economy, giving us the ability to produce motor fuels when and where we want them, with no emissions of any kind.

The most well known programs within DOE, and those that have received the most consistent support are the photovoltaics research initiatives. However, even these are likely still not realizing their full potential. This is "gold standard" research—a 2001 Peer Review of the DOE Photovoltaic Program concluded that:

"In terms of the programs' relevance to national needs, the panelists found that the PV program's work was outstanding across all activities . . . In summary, it is the panel's considered opinion that the PV program is doing an extremely effective job of setting priorities, balancing allocation of available resources, recognizing and addressing critical problems and barriers to progress and commercialization, and supporting the quality of work required to achieve its goals . . . The panel notes that the consistently high rankings assigned in this evaluation are very unusual, and they are also very deliberate . . . The panel believes this to be a truly outstanding element of the Department of Energy's programs."

SOLAR CELL PRODUCTION, 1988–2002

[MW/year]

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Rest of World	3	4	4.7	5	4.6	4.4	5.6	6.35	9.75	9.4	18.7	20.5	23.42	32.62	47.8
Europe	6.7	7.9	10.2	13.4	16.4	16.55	21.7	20.1	18.8	30.4	33.5	40	60.66	86.38	112.75
Japan	12.8	14.2	16.8	19.9	18.8	16.7	16.5	16.4	21.2	35	49	80	128.6	171.22	251.07
United States	11.1	14.1	14.8	17.1	18.1	22.44	25.64	34.75	38.85	51	53.7	60.8	74.97	100.32	100.6
Total	33.6	40.2	46.5	55.4	57.9	60.09	69.44	77.6	88.6	125.8	154.9	201.3	287.65	390.54	512.22

Within these programs, the cost-shared components have been experiencing particular success. The advanced photovoltaics manufacturing, (formerly PVMaT,) Thin Films Partnership, and Building-Integrated PV (BiPV) programs obtain cost-competitive research in coordination with industry, while keeping solar manufacturing in the United States. Manufacturers of solar and related equipment are located in States including California, Maryland, Delaware, Florida, Arizona, New Jersey, Ohio, Michigan, Tennessee, and Massachusetts, employing thousands of workers, all of whom benefit from the increased performance realized from DOE programs.

The advanced photovoltaics manufacturing programs have focused on helping to bringing efficiency and technology to bear on the complex process of manufacturing solar cells, having now brought module-manufacturing costs down by more than 50 percent. These innovations occur in a competitive cost-sharing environment that ensures rapid and cost-effective development and adoption of technologies that would not likely emerge otherwise. It is a critical component to maintaining U.S. technological viability in the face of particularly aggressive and growing German and Japanese research efforts.

The BiPV program has attracted Administration notice, with the Fiscal Year 2003 Congressional Budget Document trumpeting "an exciting and rapidly growing solar application which . . . will help cross the profit threshold that holds the key to significant growth in distributed, grid-connected electricity markets." Meanwhile, the Thin Films Partnership continues to make important discoveries, routinely knocking down their own efficiency records while investigating materials that show the real, near-term potential of cutting module prices by half or more. To support the research needs of the evolving technology and growing industry behind these programs, SEIA requests at least $100 million for the photovoltaics program in total.

Photovoltaics, of course, do not form a functioning system on their own, and we therefore request that the systems and reliability account receive robust funding so that all necessary inverter and balance-of-systems work can be carried out.

A worrisome budget note is the effective closeout of the Concentrating Solar Power (CSP) program. CSP systems currently produce 354 MW of clean, reliable, and relatively inexpensive power in the California desert. Reentering the market with newer, more refined, and more sophisticated technologies, early construction has begun for another 50 MW plant in Nevada, and a 1 MW plant in Arizona. Other project sites are being sought out or are in early negotiations now, and the Western Governor's Association has stated that they support further developing this resource.

A recent "due diligence" review of the CSP program, conducted by third party consultants Sargent and Lundy under the auspices of the National Research Council, found that "CSP technology is a proven technology for energy production, there is a potential market for CSP technology and that significant cost reductions are achievable assuming reasonable deployment of CSP technologies occurs." The Administration's own budget document for 2003 states that:

"Large-scale CSP technologies have been operating successfully in the California desert for 15 years. Over this time the cost of these systems has decreased by a factor of 3, and . . . they are currently the least expensive source of solar electricity. Recent technology advancements . . . (have) revitalized the CSP industry and placed them in a position to play a major role in near-term green power opportunities, both domestically and overseas, as costs are projected to drop into the 6–8 cents/kWh range."

Given this degree of support, promise, and sheer technological achievement, a closeout budget is simply unjustifiable.

In the recently released fiscal year 2003 omnibus appropriations, Congress instructed the Department to "spend not less than $5,500,000 for the continuation of work on concentrating solar power". This minimum level is wholly inadequate to operate an effective program. The funding roller coaster for these programs has damaged their ability to make long-term investments and to retain top-quality staff. Funding in the range of $25 million would allow the Department of Energy, through the national laboratories at Sandia and NREL, to validate technology and components with industry as well as lowering operations and maintenance costs in a stable environment. Given the growth potential of this industry, and the very strong international interest in these technologies, it seems a small price to pay.

We also note with interest the provision of the current Senate Republican staff draft of the energy bill that provides substantial research support for using Concentrating Solar Power as a source of new hydrogen fuel. The simplest means of funding this account may well be the hydrogen portion of the budget, which should address hydrogen production from renewable resources.

SEIA also strongly supports the Administration's support for Solar Buildings products and projects, including the visionary Zero Energy Buildings Program. The multi-year goal of Zero Energy Buildings (ZEB) is to achieve the requisite technology advances to spur widespread adoption of zero energy residences by 2010 and zero energy commercial buildings by 2015. This would slow and eventually eliminate new buildings' consumption of our finite energy sources. Builders around the country are increasingly developing new construction techniques, utilizing new building materials, and including solar technologies which will achieve zero finite fuel source energy consumption. For these programs we request $8 million in funding.

A different program, formerly filed under the "solar buildings" heading, is Solar Heating and Lighting. Solar water heating technologies are utilized around the world in quantities far exceeding those in the United States. Such systems can significantly reduce the consumption of electricity, and of natural gas, which is increasingly being used to generate electricity, exposing the country both to increasing energy dependence on foreign nations and to the inherent risks of transporting these fuels. Solar water heating technologies are already ubiquitous in many other countries, thereby saving other energy sources for higher value purposes.

Within this program, emphasis will be placed on reducing the cost of solar water heating by using light-weight polymer materials that can replace the heavy copper and glass materials used in today's solar thermal collectors. The goal is to complete R&D on new polymers and manufacturing processes to reduce the cost of solar water heating to 4¢/kWh in 2004. We recommend that this program be funded explicitly at the $5 million level.

We are further concerned that in many cases, the budget for "solar buildings" is frequently confused by the inclusion of non-solar technologies and research programs. These earmarks tend to distract resources and attention from important core research, and we urge that they be reexamined and strictly limited.

With these minor changes to the existing budget, we are confident that the committee can lay the foundations for a solar future where the United States can regain its lead and reap the many benefits of this, the cleanest of all energy sources.

PREPARED STATEMENT OF THE BIOMASS ENERGY RESEARCH ASSOCIATION

This testimony pertains to the fiscal year 2004 appropriation for biomass research, development, and deployment (RD&D) conducted by the Department of Energy's (DOE's) Office of Energy Efficiency and Renewable Energy (EERE). Separate statements will be submitted in support of biomass RD&D performed under the Interior and Related Agencies Bill by EERE's Office of Industrial Technologies, and on forest biomass production research by the U.S. Department of Agriculture Forest Service (USDAFS).

BERA recommends that for fiscal year 2004, $114,500,000 be appropriated for RD&D under EERE's Biomass and Biorefinery Systems Program, and biomass-related Hydrogen Technology Program.

—$24,000,000 to continue the Bioenergy and Bioproducts Initiative (BBI, Crosscutting RD&D) and $5,000,000 to continue the Regional Biomass Energy Program (RBEP).
—$21,000,000 for R&D under the core programs: Advanced Biomass Technology—Thermochemical Conversion and Bioconversion.
—$26,000,000 for R&D and $32,000,000 for the industry cost-shared scale-up projects under the core programs: Systems Integration and Production (Exclusive of the BBI).
—$6,500,000 for the biomass-related core programs under Hydrogen Technology.

On behalf of BERA's members, I would like to thank you, Mr. Chairman, for the opportunity to present the recommendations of BERA's Board of Directors for the high-priority projects and programs that we strongly urge be continued or started. BERA is a non-profit association based in Washington, DC. It was founded in 1982 by researchers and private organizations that are conducting biomass research. Our objectives are to promote education and research on the production of energy and fuels from virgin and waste biomass that can be economically utilized by the public, and to serve as a source of information on biomass RD&D policies and programs. BERA does not solicit or accept Federal funding for its efforts.

In fiscal year 2003, about 30 percent of the appropriation for EERE's RD&D was provided as earmarked funds. This is less than the 43 percent figure for fiscal year 2002, but EERE's planned objectives for their core programs will be extremely difficult or impossible to achieve because the baseline funding requested and the appropriation were almost the same in fiscal year 2003. The excessive earmarks do

not allow for sufficient funding of the core programs, and several cut-backs have been necessary. BERA respectfully asks the Subcommittee to carefully consider the impacts of earmarks on EERE's RD&D. If they are for projects that are not in DOE's formal request, BERA urges that they be add-ons to the baseline funds rather than deductions.

The original goal of the BBI created as a result of "The Biomass Research and Development Act of 2000," and Title IX of the Farm Bill, was to triple the usage of bioenergy and biobased products. Congress has provided annual funding for the BBI since fiscal year 2000. A strategic plan has been developed by the multi-agency Biomass Research and Development Board (BRDB), co-chaired by the Secretaries of Energy and Agriculture, to achieve this goal. Its achievement is necessary because of environmental, energy security, and projected fuel supply issues, and our increasing dependence on imported oil. We must determine whether practical biomass systems capable of displacing much larger amounts of fossil fuels can be developed. The fossil fuel displaced by waste and virgin biomass in 2000 was 1.55 million BOE per day, approximately 79 percent of which was wood-based. In DOE's funding request, the BBI is included under "Crosscutting Biomass R&D." BERA strongly urges that the BBI be continued in fiscal year 2004 at the funding level recommended by BERA, and that the highest priority be given to development of this program component.

PROGRAM INTEGRATION, COORDINATION, AND MANAGEMENT

For several years, BERA has urged that all biomass-related research funded by DOE should be coordinated and managed at DOE Headquarters so that the program managers are heavily involved in this activity. We are pleased to note that this process, which began in fiscal year 2002, has continued in fiscal year 2003. BERA congratulates DOE on the progress made in restructuring the program and its management. BERA also congratulates DOE and USDA for the new spirit of working together and coordinating the programs of each department to increase the usage of agricultural and forestry biomass for the production of much larger amounts of affordable fuels, electricity, and biomass-derived products than have been realized in the past. These efforts are expected to help facilitate the transition of waste and virgin biomass in the USA into major sources of renewable energy, fuels, and chemicals.

BERA urges that the BBI be incorporated into the overall Federal biomass research program. Without it, the time table for this transition will be stretched out for several decades and possibly never happen except to a very limited extent for niche markets. Large, strategically located, energy plantations are ultimately envisaged in which waste biomass acquisition and virgin biomass production systems are integrated with conversion systems and operated as analogs of petroleum refineries to afford flexible slates of multiple products from multiple feedstocks. Unfortunately, relatively large amounts of capital and inducements are required to get the private sector involved in developing even modest size projects in the field. So to help implement this program, BERA includes the BBI as a line-item in its annual testimony.

BERA also continues to recommend that implementation of the BBI should include identification of each Federal agency that provides funding related to biomass energy development, each agency's programs, and the expenditures by each agency. DOE and the USDA have initiated this process. This is an on-going activity that should be expanded to include other agencies and departments and help fine-tune the critical pathways to program goals. Continual analysis of the information compiled should enable the coordination of all Federally funded biomass energy programs through the BRDB to facilitate new starts focused on high priority targets, and help to avoid duplication of efforts, unnecessary expenditures, and continuation of projects that have been completed or that do not target program goals. Full implementation of the BBI will enhance the value of the Federal expenditures on biomass research to the country in many different ways.

BERA RECOMMENDATIONS

BERA's project recommendations consist of a balanced program of mission-oriented RD&D on conversion research and technology transfer to the private sector. Advanced conversion processes and power generation technologies, alternative liquid transportation fuels, and hydrogen-from-biomass processes are emphasized. Biomass production RD&D for energy uses is ultimately expected to be done by the USDA.

BERA continues to recommend that at least 50 percent of the Federal funds appropriated for biomass research, excluding the funds for scale-up projects, are used to sustain a national biomass science and technology base via sub-contracts for industry and universities. While it is desirable for the national laboratories to coordi-

nate this research, increased support for U.S. scientists and engineers in industry, academe, and research institutes that are unable to fund biomass research will encourage commercialization of emerging technologies and serious consideration of new ideas. It will also help to expand the professional development and expertise of researchers committed to the advancement of biomass technologies.

In its core RD&D, EERE has terminated research in several microbial and thermochemical conversion areas. BERA believes that a balanced program of high-priority research should be sustained and protected, so we continue to recommend both a diversified portfolio of research and an appropriate amount of funding for scale-up without diminishing either EERE's R&D or scale-up programs. BERA's specific dollar allocations are listed in the table on page 3. Additional commentary on each program area is presented on pages 4 and 5. Other mission-oriented biomass RD&D programs are funded through EERE's Office of Industrial Technologies (OIT) under the Interior and Related Agencies Bill. DOE's basic research on biomass energy outside of EERE by the Office of Science, which supports academic research, should be designed to complement EERE's mission-oriented biomass RD&D and the BBI.

ALLOCATION OF APPROPRIATIONS RECOMMENDED BY BERA

BERA recommends that the appropriations for biomass RD&D in fiscal year 2004 be allocated as shown in the accompanying table. BERA's recommendations are generally listed in the same order as DOE's requests for funding under the headings Energy Supply, Biomass Program, Biomass/Biorefinery Systems R&D; and Energy Supply, Hydrogen Technology, Hydrogen/Fuel Cells/Infrastructure Technologies Program. However, several research areas are included that are either new or that BERA recommends be restored to sustain a balanced program. Note that in fiscal year 2004, EERE incorporated several new changes in program names and nomenclature in addition to those made in fiscal year 2003, and zeroed-out or moved some programs between EERE's Offices. Note also that the recommended budget for each scale-up category does not include industry cost-sharing, which is required to be a minimum of 50 percent of each project cost. BERA recommends that funds for the BBI be used mainly for scale-up projects after evaluating the projected contribution of each project to the BBI's goals. New projects should not be started until this is done.

Office of Energy Efficiency and Renewable Energy	Program Area	Recommended Budget	
		For Research	For Scale-Up
Biomass/Biorefinery Systems:			
Advanced Biomass Technology	Thermochemical Conversion:		
	Combustion	$2,000,000	
	Gasification	2,000,000	
	Pyrolysis	2,000,000	
	Liquefaction	2,000,000	
	Bioconversion:		
	Fermentation (Ethanol)	4,000,000	
	Organisms and Enzymes	6,000,000	
	Fermentation (Methane)	1,000,000	
	Chemicals	2,000,000	
Systems Integration/Production	BBI (Crosscutting RD&D)[2]	2,000,000	$22,000,000
	Thermochemical Conversion:		
	Ethanol	3,000,000	4,000,000
	Other Oxygenates/Mixed Alcohols	4,000,000	4,000,000
	Syngas-Based Chemicals, Fuels[3]	2,000,000	4,000,000
	Ash Deposition, Uses, Disposal	1,000,000	
	By-Products, Recovery, Uses	1,000,000	
	Improved Emissions, Controls	2,000,000	
	Wastewater Treatment	2,000,000	
	Hot Gas Clean-Up	1,000,000	
	Small Modular Biopower	0	2,000,000
	Feedstock Infrastructure	2,000,000	
	Bioconversion:		
	Ethanol Scale-Up with Cellulosics	0	8,000,000
	By-Products, Recovery, Uses	1,000,000	
	Improved Emissions, Controls	1,000,000	
	Wastewater Treatment	2,000,000	
	Integrated Biorefinery Development:		

Office of Energy Efficiency and Renewable Energy	Program Area	Recommended Budget	
		For Research	For Scale-Up
	Designs, Economics, Markets	1,000,000	
	Product Slates, Flexibility, Costs	1,000,000	
	Siting, Acquisition, Construction	2,000,000	10,000,000
	Regional Biomass Energy Program[3]	0	5,000,000
Subtotal		49,000,000	59,000,000
Hydrogen Technology[1]	Thermal Processes (Reforming)	500,000	1,000,000
	Photolytic Processes (Algae)	1,000,000	0
	Innovative Conversion Processes	4,000,000	0
Subtotal		5,500,000	1,000,000
Totals		54,500,000	60,000,000
Grand Total		$114,500,000	

[1] BERA's recommendations pertain only to the biomass-based portion of Hydrogen Technology.
[2] BERA's recommendations for the Biomass and Bioproducts Initiative are expected to be used for research and scale-up as indicated, but are not allocated by program area in this table.
[3] The McNeil Gasification Project in Burlington, VT and the Regional Biomass Energy Program have been zeroed-out of EERE's fiscal year 2004 budget. BERA strongly urges that they be restored and continued (see Systems Integration/Production, Thermochemical Conversion, and Regional Biomass Energy Program sections in text).

Advanced Biomass Technology

Thermochemical Conversion.—Continued R&D to develop advanced biomass combustion and gasification methods could have environmental and economic benefits that can lead to significant growth in low-cost power generation from waste biomass and the disposal of certain kinds of high-moisture waste biomass such as biosolids (municipal sewage), which are very costly to treat and dispose of. Most of this research has been phased out by DOE. Research (not scale-up) should be initiated or restored with the goal of developing the next generation of thermochemical biomass conversion processes for power generation and the utilization of high-moisture biomass for combined disposal-power generation applications.

The pyrolysis of biomass, or its thermal decomposition in the absence of oxygen, yields a large number of gaseous, liquid, and solid products. Hardwood feedstocks were used commercially until the 1930's to manufacture fuel gases, solvents, chemicals, fuel oils, and charcoal. Because of the steadily increasing prices of natural gas and petroleum crude oils, a few small-scale commercial biomass pyrolysis systems have recently been installed and operated under conditions that increase product flexibility and selectivity to yield cost-competitive products. BERA recommends that exploratory research on biomass pyrolysis be added to EERE's program to help design advanced processes. All of the basic data compiled during DOE-funded research on biomass pyrolysis in the 1970's and 1980's should be reexamined in this work.

Several thermochemical technologies are available for the liquefaction of biomass feedstocks to afford storable liquid fuels and chemicals. Included among these conversion methods is pyrolysis under certain conditions that maximize the yields of liquid products, the catalytic conversion of syngases from biomass to liquid chemicals such as ethanol and other oxygenates, catalytic hydrogenation of biomass and biomass derivatives such as natural oils for the direct production of liquid fuels, and biomass liquefaction under supercritical conditions of pressure and/or temperature. BERA recommends that thermochemical liquefaction of biomass be added to EERE's program to find and improve innovative conversion methods that have a high probability of leading to cost-effective, storable liquid fuels from biomass.

Bioconversion.—The goal of simultaneous conversion of pentoses and hexoses from low-cost cellulosics to fermentation ethanol at high efficiencies on a commercial scale requires the use of special processes for producing genetically engineered organisms and cellulase systems at acceptable costs and performance. Research should continue to perfect these technologies for incorporation into the overall fermentation process designs to be used in the scale-up program for fermenting cellulosic feedstocks.

Methane fermentation (anaerobic digestion) is unique in that it produces methane, the major component in natural gas, at high concentrations (medium-Btu gas) from a full range of virgin and waste biomass. DOE has terminated most of this research. Research can lead to advanced processes as well as the alleviation of numerous environmental problems encountered during waste treatment and disposal. This research should be restored.

Bioconversion is useful for converting a variety of biomass and derivatives to a wide range of commodity and specialty organic chemicals and polymers. The use of selected microbial populations is in fact the only practical route to certain types of chemicals and polymers. An exploratory program to advance this technology is a natural adjunct to DOE's on-going biomass fermentation program. BERA recommends that part of the research effort under Advanced Biomass Technology focus on this field.

Systems Integration and Production

Biomass and Bioproducts Initiative (Crosscutting RD&D).—See pages 1 and 2 of testimony.

Thermochemical Conversion.—The availability of thermochemical biomass conversion processes for producing ethanol, mixed alcohols, and other oxygenates offers a range of non-microbial options for commercializing biomass liquefaction technologies. This should be one of the key components of EERE's program, but is minimal when compared with the efforts expended on fermentation ethanol over many years. The development of medium-Btu biomass gasification is also a key component for the production of fuels, power, and chemicals. However, funding for the commercial scale demonstration plant in Burlington, VT by DOE was ended in fiscal year 2003. This plant is capable of use as a multi-purpose development site for biomass gasification and related technologies. BERA recommends that both thermochemical liquefaction and gasification RD&D be expanded and continued by EERE. The existing plant in Vermont should be utilized to test advanced gas clean-up methods and advanced power generation systems.

Small Modular Biopower.—Research on the development of small, biomass combustion turbines should be continued to develop advanced designs for small modular systems, and for cogeneration and distributed generation.

Feedstock Infrastructure.—BERA recommends that DOE develop the infrastructure, while the Forest Service of the USDA initiates and continues RD&D on biomass production, particularly woody biomass.

Bioconversion.—As reported last year, DOE's contributions to the costs of several fermentation ethanol plants have either been completed or are winding down. The processes used are conventional and advanced technologies, and a plant using corn stalk feedstocks was planned for the Midwest. BERA recommends that the existing scale-up projects should be completed, the results analyzed, and the technologies confirmed before other scale-up projects are started. Since corn continues to be the main feedstock for U.S. plants, it is vital to commercialize the use of low-cost cellulosic feedstocks to reduce the cost of fermentation ethanol. RD&D should focus on the information needed to facilitate scale-up and make this happen. Although much of it is in-hand now, critical information related to biomass transport, storage, and handling; feedstock characterization, pretreatment and hydrolysis; storage, maintenance, and use of genetically modified organisms and of active cellulase systems for pentose and hexose conversion; nutrient cost reductions, by-product recovery and utilization; and improved emissions, controls, and wastewater treatment, is still needed to design optimum low-cost processes that afford fermentation ethanol at competitive motor fuel prices. NREL's fermentation pilot plant and counter-current pretreatment pilot plant reactor installed in fiscal year 2000 should be fully utilized on a cost-shared basis with DOE's industrial partners to support the scale-up of processes operated with cellulosic feedstocks.

Integrated Biorefinery Development.—This program component is expected to include the activities necessary to select and integrate all unit operations employed in the biorefinery and the biomass acquisition systems. This effort should address plant design, siting, financing, permitting, construction, environmental controls, waste processing and disposal, and sustained plant operations; feedstock selection, transport, storage, and delivery; all waste and emissions issues; and storage and delivery of all salable products. BERA recommends that industrial partners be carefully selected for participation in this cost-shared program at the beginning of each project. This work should be given the highest priority. Most of the funds for the BBI provided by Congress should be used for this effort. Long-range planning is essential to ensure that each project has a high probability of success and lays the groundwork for continued installation of similar systems by the private sector.

Regional Biomass Energy Program.—The RBEP has been a legislatively-mandated model information and outreach program for almost 20 years. There is no other Federal program with the information transfer role, capabilities, leverage, experience, local-level presence, and widespread networks of the RBEP; nor is there a DOE program so closely affiliated with State and regional government organizations. Historically, RBEP's partners have provided between $2 to $4 for every $1 of RBEP funds, making it one of the most cost-effective Federal programs. If DOE terminates this

program, BERA recommends that it be transferred to and operated by the USDA, and that it continue to be managed by the government host organizations: Coalition of Northeast Governors, Southern States Energy Board, Council of Great Lakes Governors, and Western Governors Association, which provide direct links to the governors and legislators of each State.

Hydrogen Technology

Research on the thermal reforming of biomass and on splitting water with algae, which is the equivalent of photolysis, should be continued. In addition, innovative conversion methods such as the use of anaerobic digestion under ambient conditions and catalytic and non-catalytic thermochemical gasification under certain operating conditions that minimize methane formation while maximizing hydrogen formation should be studied. These technologies may lead to low-cost hydrogen production methods.

PREPARED STATEMENT OF THE UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH

On behalf of the University Corporation for Atmospheric Research (UCAR) and the university community involved in weather and climate research and related education, training and support activities, I submit this written testimony for the record of the Senate Committee on Appropriations, Subcommittee on Energy and Water Development.

UCAR is a consortium of 66 universities that manage and operate the National Center for Atmospheric Research (NCAR) and additional programs that support and extend the country's scientific research and education capabilities. The UCAR mission is to support, enhance, and extend the capabilities of the university community, nationally and internationally; to understand the behavior of the atmosphere and related systems and the global environment; and to foster the transfer of knowledge and technology for the betterment of life on earth. In addition to its member universities, UCAR has formal relationships with approximately 100 additional undergraduate and graduate schools including several historically black and minority-serving institutions, and 40 international universities and laboratories. UCAR is supported by the National Science Foundation (NSF) and other Federal agencies including the Department of Energy (DOE).

DOE OFFICE OF SCIENCE

The DOE is the third largest Federal sponsor of basic research and the largest supporter of research in the physical sciences. It supports more than 15,000 Ph.D. scientists, graduate students and post-doctoral researchers in universities and national laboratories. The programs and national user facilities of the agency's Office of Science are vital to the Nation's basic research investment across all disciplines in the natural and physical sciences. These yield both short-term benefits and future advances in environmental research, basic computing and physics research, energy supply, homeland security, and educational growth.

Last month the Senate Committee on Energy and Natural Resources responded to the President's fiscal year 2004 request, and expressed its concern for DOE's Office of Science budget, and the trend of level or flat funding for programs within it. UCAR endorses the views of the Committee. The President's request for DOE's Office of Science is flat, and has remained level funded for a decade. Funding it at the request of $3.3 billion would be significantly less than the $3.6 billion recommended in H.R. 34, the Energy and Science Research Investment Act of 2003, a bipartisan bill supported by almost 40 House members.

This request also falls short of the goal of the President's Council of Advisors on Science and Technology (PCAST), which recommended in its October 2002 report that the budget request begins bringing funding for the physical sciences into parity with that of the life sciences.

In order to achieve parity, DOE's Office of Science should be funded at $3.6 billion, a level that will critically augment and reinvigorate the work of researchers throughout the Nation.

Within the Office of Science, the Biological and Environmental Research (BER) program develops the knowledge necessary to identify, understand, and anticipate the potential health and environmental consequences of energy production and use. These are issues that are absolutely critical to our country's well-being and security. The BER program is of particular importance to the work of the atmospheric sciences community. Specifically, the Climate Change Research Program is dedicated to advancing very important climate work, including climate modeling, the at-

mospheric radiation measurement program, global change research, meteorological research. It also supports a mentoring program for a 4-year graduate and undergraduate program for minority students pursuing careers in the atmospheric and related sciences. The request for this program is decreased almost 6 percent from the fiscal year 2003 enacted level of $530 million. In following the recommendation made above for the Office of Science, it is critical BER's allocation be increased by 9 percent, for a total of $577.7 million.

CLIMATE CHANGE RESEARCH INITIATIVE (CCRI)

In fiscal year 2004, BER will continue to contribute to the Administration's Climate Change Research Initiative (CCRI) to deliver information useful to policy makers. The BER contribution to the CCRI will primarily be through focused research on the carbon cycle to further understand carbon dioxide emissions in relation to the North American carbon sink. BER will also contribute to the CCRI in other areas, including climate change modeling, atmospheric composition, and regional impacts of climate change. To make significant headway in these areas, it is very important the Committee support the fiscal year 2004 request for CCRI, of $25.3 million.

ADVANCED SCIENTIFIC COMPUTING RESEARCH (ASCR)

DOE's ASCR provides advances in computer science and the development of specialized software tools that are necessary to research the major scientific question being addressed by the Office of Science. ASCR's continued progress is of particular importance to atmospheric scientists involved with complex climate model development, research that takes enormous amounts of computing power. By their very nature, problems dealing with the interaction of the earth's systems and global climate change cannot be solved by traditional laboratory approaches. Of particular importance to the U.S. National Assessment effort in global change is ASCR's critical contribution to the multiagency effort to develop the Coupled Parallel Climate Model (PCM) and its successor, the Community Climate System Model (version 2.0). The fiscal year 2004 request for ASCR is disappointing to the community, providing it with a 0.5 percent increase. In order to regain our international leadership in advanced computing, it is essential the Committee to provide a 9 percent increase for ASCR and fund it at $188 million.

On behalf of UCAR and the atmospheric sciences research community, I want to thank the Committee for the important work you do for U.S. scientific research. We appreciate your attention to the recommendations of our community concerning the fiscal year 2004 budget of the Department of Energy. We understand and appreciate that the Nation is undergoing significant budget pressures at this time, but a strong Nation in the future depends on the investments we make in science and technology today.

PREPARED STATEMENT OF THE NUCLEAR ENERGY INSTITUTE

On behalf of the nuclear energy industry, thank you for your support of nuclear technology-related programs in the Energy Department and your oversight of the Nuclear Regulatory Commission (NRC) for fiscal year 2003.

The Nuclear Energy Institute is responsible for developing policy for the U.S. nuclear industry. NEI's 270 corporate and other members represent a broad spectrum of interests, including every U.S. energy company that operates a nuclear power plant. NEI's membership also includes nuclear fuel cycle companies, suppliers, engineering and consulting firms, national research laboratories, manufacturers of radiopharmaceuticals, universities, labor unions and law firms.

America's 103 nuclear power plants are the safest, most efficient and reliable in the world. Nuclear energy is the largest source of emission-free electricity generation in the United States. Nuclear power plants in 31 States provide electricity for one of every five homes and businesses in the Nation, and the industry again last year reached record levels for efficiency and electricity production. It is essential that Congress adopt policies that foster the further development of this vital part of our Nation's energy mix—and fulfill existing Federal obligations, such as the commitment to manage used nuclear fuel.

My statement for the record addresses three key points: (1) Congress should reclassify the Nuclear Waste Fund, reorienting it to its original purpose and ensuring adequate funding for the Yucca Mountain repository project; (2) research and development (R&D) on advanced nuclear technology should continue to maintain America's leadership role in commercial nuclear technologies; and (3) the Nuclear Regu-

latory Commission's (NRC) budget and staffing should be reassessed in light of current trends.

I also will discuss briefly several important programs supported by the nuclear energy industry, including research into the health effects of low-level radiation.

CONGRESS SHOULD RECLASSIFY THE NUCLEAR WASTE FUND

National policy clearly establishes the Federal Government's responsibility for deep geologic disposal of used nuclear fuel and the by-products of defense-related activities. In 1982, the Nuclear Waste Policy Act codified Federal policy for developing a repository for long-term stewardship of used nuclear fuel.

President Bush last year approved Yucca Mountain as the site to develop a Federal repository and the decision was overwhelmingly upheld by the 107th Congress. I commend this committee for its leadership in supporting the Yucca Mountain resolution and the President's request for funding the program. The next step is for the Department of Energy (DOE) to submit an application to the Nuclear Regulatory Commission by December 2004 for a license to construct the repository.

It is imperative that DOE meet its milestones for licensing, so the repository can be built and operating by 2010. This is consistent with our Nation's longstanding policy for responsible management of used nuclear fuel. It also honors the Federal Government's commitment to consumers—who, since 1983, have committed more than $22 billion for used nuclear fuel disposal. The Nuclear Waste Fund has a balance of more than $13 billion and is growing at a rate of about $1 billion annually, including interest. The funds collected from consumers of electricity from nuclear power plants specifically for used fuel management must be available for repository construction and operation.

FUND TREATMENT DIVERTS CONSUMER MONEY FROM ORIGINAL INTENT

The Nuclear Waste Fund was established in 1982 as a separate account in the Federal treasury. However, congressional efforts to control deficit spending in the 1980's and 1990's changed the status of the fund. Appropriations from the fund, but not the receipts, were placed under a discretionary spending cap. The result is that the Nuclear Waste Fund is subject to appropriations caps and "pay-as-you-go" budget rules, even though the fund is self-financed. These rules expire on September 30, but the President's fiscal year 2004 budget proposed that they be continued for 2 more years.

By the current approach, Congress must fund the used fuel programs within the confines of the discretionary spending allocation for the Energy and Waster Development Appropriations bill. As a result, Yucca Mountain funding consistently has been reduced below the level of receipts to provide increased funding in other, unrelated areas, despite the fact that receipts into the fund are specifically earmarked for the used nuclear fuel disposal program. In short, Congress's current budgetary process is taking consumer contributions to the Nuclear Waste Fund for use in funding unrelated programs.

The industry urges Congress to reclassify the Nuclear Waste Fund this year to prevent future funding shortfalls for Yucca Mountain. This will help ensure that the government does not further delay meeting its legal obligation to remove used nuclear fuel from commercial nuclear plant sites. And it is the right thing to do with Americans' money.

INDUSTRY SUPPORTS PROPOSAL TO ADJUST SPENDING CAP

The nuclear energy industry supports the administration's proposal to adjust the fund's discretionary spending cap. We have attached a policy brief that examines this issue. We encourage the committee to support the proposal. A more permanent solution is needed to ensure that funds collected for the waste program are allocated directly to the project based on annual project funding requirements and with continued congressional oversight.

The industry strongly supports DOE's fiscal year 2004 funding request of $591 million for the Office of Civilian Radioactive Waste Management. We do not believe that the program will be able to meet the important milestone for submitting a license application to the NRC absent this level of funding for the program.

We strongly urge restoration of funds not appropriated in fiscal year 2003 so that the program recovers from reductions in scientific study and licensing activities at the lower funding level of $460 million. Increased funding is necessary for DOE to file a license application to the NRC in 2004. In additional, funding for other critical activities—such as transportation planning—is essential to DOE's ability to achieve the major milestones in the program.

Although the repository program is the foundation of our national policy for managing used nuclear fuel, the nuclear industry also recognizes the value in researching emerging technology for used fuel treatment and management. Such farsighted R&D programs would allow our Nation to remain the world leader in nuclear technologies. However, technologies like transmutation—the conversion of used nuclear fuel into less toxic materials—still require a Federal repository for disposal of the radioactive by-products generated from the process.

RESEARCH AND DEVELOPMENT MUST FOSTER NUCLEAR ENERGY

Nuclear energy is a secure, domestic source of electricity and plays a vital role in meeting national Clean Air Act requirements and voluntary greenhouse gas reduction programs. Last year, the industry's average capacity factor—a measure of efficiency—was 91.5 percent, and 103 reactors generated a record 778 billion kilowatt-hours of electricity. Production costs are low and stable over many years.

Nuclear energy is important today, and it will be even more important in the future, given rising electricity demand and the nexus between energy and environmental policy. For its part, the nuclear industry will continue to increase the amount of electricity generated by nuclear power by relicensing reactors, continuing to improve efficiency and implementing new technology to uprate, or boost the output from, current reactors.

But in the near future, new nuclear power plants will be needed.

The Energy Information Administration projects that demand for electricity will increase about 1.9 percent annually over the next two decades. To meet this increased demand, and replace outmoded fossil fuel-fired power plants, the United States will need to add more than 327,000 megawatts of capacity—the equivalent of 36 mid-size (500-megawatt) power plants every year between now and 2020.[1] Some of the new plants must be emission-free nuclear reactors.

As other nations pursue new or expanded nuclear programs, continued R&D also is important for the United States to maintain energy diversity—one of the strengths of our electricity infrastructure—to expand nuclear energy's environmental benefits to our Nation, and to remain the world leader in applying this technology. U.S. leadership is necessary to ensure reliable operations and a significant export market for U.S. products. The industry supports increased fiscal year 2004 funding for DOE nuclear energy R&D programs, especially the Nuclear Energy Technologies (NET) program, which promotes the development of new nuclear energy systems. Within this program, DOE includes Nuclear Power 2010, which will foster the construction and operation of new nuclear power plants by 2010 as one option to increase domestic electricity supply. Already, three companies have identified plant sites for potential new plants and are seeking to validate the NRC's early site permitting process.

The nuclear energy industry urges the committee to approve at least $60 million for the NET program. Within the NET program, $35 million should be earmarked for the Nuclear Power 2010 effort and $20 million for R&D needed to bring innovative reactor concepts, known as Generation IV reactors, to the marketplace. NEI urges your support for a demonstration project for using new reactor designs at a national laboratory within the scope of the Generation IV reactor program. The industry also supports the National Climate Change Technology Initiative at $5 million.

The Nuclear Energy Research Initiative (NERI)—which seeks to expand America's nuclear energy program for the 21st century—fills a vital need identified in a 1997 report by the President's Council of Advisors on Science and Technology (PCAST). PCAST recommended a competitive peer-reviewed R&D program to address potential barriers to increased nuclear energy use and to maintain America's nuclear science and technology leadership. PCAST also recommended an international cooperative program within NERI.

The nuclear energy industry urges the committee to approve at least $32 million in fiscal year 2004 for the NERI program. Within that amount, NEI recommends $5 million for International NERI. Although current funding has been sufficient to continue projects initiated in previous fiscal years, DOE's fiscal year 2004 request reduces funding by half, thus restricting any new R&D projects.

PCAST also recommended another R&D initiative—the Nuclear Energy Plant Optimization (NEPO) program—to generate more low-cost energy from America's existing nuclear power plants.

[1] One-point-nine percent annual increase for 18 years (2003–2020) equals 327,300 megawatts increased demand equals about 18,000 megawatts per year equals 36 500-megawatt power plants per year.

The nuclear energy industry encourages the committee to allocate $10 million for the NEPO program, which seeks to improve already high efficiency and reliability at U.S. nuclear power plants. This public-private partnership is helping to facilitate America's economic growth and improving our Nation's air quality. NEPO received $5 million in fiscal year 2003—$5 million less than the PCAST recommendation. DOE has proposed no funding for the program in fiscal year 2004.

The industry also requests $26.5 million for DOE's University Support Program, which supports vital research and educational programs in nuclear science at the Nation's colleges and universities. With nuclear plant relicensing and plans for new plants, demand for highly educated and trained professionals will continue.

NEI encourages the committee to consider a new $2 million program within the Office of Nuclear Energy to support universities that have undergraduate and graduate programs in health physics. The industry's most recent survey of human resources revealed that health physics professionals are declining in numbers and the need will become acute in the next few years when many will retire. This critical resource will be necessary to support the industry, government programs at DOE sites and national laboratories, NRC activities and homeland security programs to respond to potential dirty bomb threats.

The administration has proposed including nuclear energy in the hydrogen fuel initiative. We believe hydrogen offers significant promise as a future energy technology. Nuclear energy is the best available technology for the large-scale production of hydrogen using electrolysis. A DOE program supporting both concepts should be supported in fiscal year 2004 at $12 million.

NRC'S BUDGET AND STAFFING SHOULD BE REASSESSED IN LIGHT OF CURRENT TRENDS

Our Nation's focus on security has led to significant security enhancements at nuclear power plants. It is appropriate at this time for the NRC to review its budget and resource allocations in light of current demands and other resources available. For example, the NRC currently is budgeted for about 200 staff in its Nuclear Security and Incident Response organization. A significant portion of their work overlaps with responsibilities of the new Department of Homeland Security (DHS)—particularly in the areas of threat and vulnerability assessment. The NRC should carefully review its organizational structure as the DHS assumes a greater role in securing the Nation's energy infrastructure. This review should be completed before additional funding is authorized for NRC security-related activities.

Since September 11, 2001, the nuclear energy industry has remained at a heightened level of alert. The defense-in-depth inherent in the robust design of our plants has been reassessed and augmented. During the past 18 months, our industry has invested an additional $370 million in security-related improvements, including fortified perimeter security; improved background checks; and tighter access control at our plants. As part of this effort, the nuclear energy industry has added about one-third more security officers, for a total of 7,000 well-trained, armed security officers at our 67 nuclear power plant sites. The industry will continue to make these investments and improvements to enhance private industry's best security program.

Our Nation's 103 nuclear power reactors are operating at very high levels of safety and reliability. In fact, nearly 75 percent of the reactors have the NRC's highest safety performance indicator in all categories, and most of the others have only a single indicator in the next lower level. The excellent safety record of U.S. nuclear power plants lays the groundwork for refining regulatory oversight based on performance and safety insights. Additionally, insights from the reactor oversight process indicate that several major regulations for power reactors are not providing a significant safety value. A disciplined review of the regulations should be undertaken to eliminate or modify outdated requirements.

The industry commends the Appropriations Committee for reducing the nuclear industry user fee assessments for NRC activities that are unrelated to regulation of the industry. The proportion of the NRC's budget derived from user fees will continue to decrease by 2 percent each year through 2005. In that year, licensees will support 90 percent of the NRC's budget, which will not include activities that are not directly related to regulating the industry.

In addition, the industry supports an evaluation reviewing the scope and content of inspection programs; eliminating research efforts of questionable value, such as studies of human performance and organizational effectiveness; and streamlining the differing professional opinion process to improve its effectiveness, while minimizing its impact on issue resolution and the use of management resources.

INDUSTRY SUPPORT FOR ADDITIONAL ACTIVITIES

Nuclear Nonproliferation.—The industry supports the disposal of excess weapons grade nuclear materials through the use of mixed-oxide fuel in reactors in the United States and Russia.

Low-Dose Radiation Health Effects Research.—The industry strongly supports continued funding for the DOE's low-dose radiation research program. This program will provide a better understanding of low-dose radiation effects to ensure that public and private resources are applied in a manner that protects public health and safety without imposing unacceptable risks or unreasonable costs on society.

Nuclear Research Facilities.—The industry is concerned with the declining number of nuclear research facilities. We urge the committee to request that DOE provide it with a long-term plan for using existing nuclear research facilities as well as for the development of new research facilities.

Uranium Facility Decontamination and Decommissioning.—The industry fully supports cleanup of the gaseous diffusion plants at Paducah, KY; Portsmouth, OH; and Oak Ridge, TN. Each year, commercial nuclear power plants contribute more than $150 million to the government-managed uranium enrichment plant Decontamination and Decommissioning Fund. NEI urges the committee to ensure that these monies are spent on decontamination and decommissioning activities at these facilities. Other important environmental, safety and/or health activities at these facilities should be paid for out of general revenues.

International Nuclear Safety Program and Nuclear Energy Agency.—NEI supports the funding requested for the international nuclear safety programs of both the DOE and NRC. They are programs aimed at improving the safe commercial use of nuclear energy worldwide.

Medical Isotopes Infrastructure.—The nuclear industry supports the administration's program for the production of medical and research isotopes.

PREPARED STATEMENT OF THE AMERICAN CHEMICAL SOCIETY

The American Chemical Society (ACS) would like to thank Chairman Pete Domenici and Ranking Member Harry Reid for the opportunity to submit testimony for the record on the Energy and Water Development Appropriations bill for fiscal year 2004.

ACS is a non-profit scientific and educational organization, chartered by Congress, representing more than 160,000 individual chemical scientists and engineers. The world's largest scientific society, ACS advances the chemical enterprise, increases public understanding of chemistry, and brings its expertise to bear on State and national matters.

As Congress and the administration seek to bolster the economy, economists agree that investments in basic research boost long-term economic growth more than other areas of Federal spending. These investments foster the new technologies and trained scientific workforce that drive the Nation's public health, defense, energy security, and environmental progress. Although industry funds the bulk of national R&D, the Federal Government provides 60 percent of basic research funding and, remarkably, 40 percent of patents cite Federal research as their source. Yet Federal research in the physical sciences and engineering has been cut in half since 1970 as a percentage of GDP. Fortunately, the President's top science and technology advisory council, the House and Senate Appropriations Committees, and the Hart-Rudman Commission on National Security have all recognized the need to boost investment in physical sciences and engineering research. This investment has never been more important given its central role in advancing the Nation's economic, energy, and homeland security.

ACS BUDGET RECOMMENDATIONS

Current Federal efforts to advance energy efficiency, production, and new energy sources while reducing air pollution and other environmental impacts will demand increased investment in long-term energy research. By supporting people, research, and world-class science and engineering facilities, the Department of Energy's Office of Science expands the frontiers of science in areas critical to DOE's energy, environment, and national security missions. Unfortunately, the administration's budget request would continue the shrinking investment in basic energy research at DOE in recent years, which must be reversed to meet these national goals. ACS recommends a budget of $3.6 billion for DOE's Office of Science in fiscal year 2004, a 10 percent increase over fiscal year 2003.

Increases will help reverse the declining Federal support for the physical sciences and to encourage more students to pursue degrees in these fields. The Office of Science is the largest Federal supporter of research in the physical sciences, funding almost 40 percent of research in these fields. In view of the emphasis placed on the physical sciences in the fiscal year 2004 budget, ACS is disappointed that this vital office did not receive adequate support.

The Office of Science fosters the new discoveries and technical talent that will continue to be essential to advances in coal, hydrogen, biomass, genomics, and many other technology areas. Additional funds should be directed to increase the number of grants, especially in core energy programs, and to improve research facilities. The Office is the primary source of Federal support in many research areas essential to our energy security and economy, such as catalysis, carbon cycle research, photovoltaics, combustion, and advanced computing. Increased investment is also important given the declining private support for long-term energy research.

INCREASE GRANTS IN CORE PROGRAMS

ACS recommends that increases for the Office of Science be directed to advancing core energy research across disciplines, which enables DOE to respond rapidly to new challenges. For example, DOE capitalized on long-term atmospheric chemistry research, particularly in aerosols, and quickly developed a single anthrax-bacterium detector. DOE must strengthen its ability to attract scientists and train the next generation of scientists and engineers by increasing the number of grants in its core programs without reducing their size and duration. Current appropriations allow the DOE Office of Science to fund only 10 percent of the unsolicited, peer-reviewed proposals it receives annually. This rate is considerably lower than those of other agencies and amounts to lost opportunities for both significant discoveries and the education of the next generation of scientists and engineers.

Within the Office of Science, ACS particularly supports the Basic Energy Sciences and Biological and Environmental Research programs. As the cornerstone of the Office, the Basic Energy Sciences (BES) program supports an array of long-term basic research to improve energy production and use and reduce the environmental impact of those activities. The BES program manages almost all of DOE's scientific user-facilities, and provides leading support for nanotechnology and advanced computing research—two priority research areas that will have important implications for energy efficiency and security. The Biological and Environmental Research (BER) program advances fundamental understanding in fields such as waste processing, bioremediation, and atmospheric chemistry to better understand potential long-term health and environmental effects of energy production and use and identify opportunities to prevent pollution. Progress in these fields is also needed to develop and advance new, effective, and efficient processes for the remediation and restoration of DOE weapons production sites. ACS supports a strong role for DOE in Federal efforts to advance pollution prevention and climate change research.

DOE AND THE SCIENTIFIC WORKFORCE

As the largest supporter of research in the physical sciences, DOE can greatly affect the training and number of scientists in industry, government and academia. Inadequate investment in any research field constricts the supply of trained scientists and engineers who apply research and develop new technology. For instance, declining support for nuclear science and engineering will greatly affect the nuclear sector as a majority of today's nuclear scientists and engineers near retirement. Another example is the synergistic relationship between the need for radiochemists and NIH's ability to conduct clinical trials. Advances in diagnosis and treatment in nuclear medicine are dependent on the synthesis of highly specific radiopharmaceuticals that target biological processes in normal and diseased tissues. The Office of Science, through BER supported research, occupies a critical place in the field of radiopharmaceutical research. The NIH relies on the Office of Science's basic research to enable clinical trials.

Another way for DOE to help attract students and retain talented scientists and engineers is to renew its investment in scientific infrastructure. The Office of Science effectively operates one of the most extensive and remarkable collection of scientific user facilities in the world, which provide tools for the research of more than 15,000 scientists funded by DOE, other Federal agencies, and industry. Many facilities are in poor condition or have outmoded instrumentation. Additional funding would allow for increased operating time, upgrades, instrumentation, and technical support. More complete utilization of DOE's facilities would increase the return on investment and maximize their scientific contributions and educational value.

National laboratories also play an important role in providing research and training opportunities to enhance the university curriculum. ACS supports the initial plan by DOE to utilize its national laboratories to help mentor and train science teachers. Students at all levels clearly learn better when their teachers have a deep understanding of the subject, and the first-rate multidisciplinary research and scientific professionals at the national laboratories certainly could be a rich resource for science and math teachers. We are concerned, however, that increases for this new initiative will come at the expense of more fundamental programs and thus urge that new funding be provided. ACS also urges stronger coordination among agencies with significant K–12 math and science programs in order to maximize the Federal investment in this area.

PREPARED STATEMENT OF SOUTHEASTERN FEDERAL POWER CUSTOMERS, INC.

Mr. Chairman and Members of the subcommittee, on behalf of the Southeastern Federal Power Customers' ("SeFPC"), I am pleased to provide testimony in reference to the administration's fiscal year 2004 budget request for the Department of Energy and related Federal Power Marketing Administrations ("PMAs"). My testimony will focus primarily on the budget request for the Southeastern Power Administration ("SEPA"). Among other issues, we wish to emphasize that the proposed changes in SEPA's Puchased Power and Wheeling ("PP&W") budget would have a negative impact on Federal preference power customers throughout the Southeast.

SEPA purchases, transmits, and markets the power generated at Federal reservoirs to municipal systems, rural electric cooperatives, and other wholesale customers throughout the Southeast. The SeFPC has enjoyed a long and successful relationship with SEPA that has greatly benefited the approximately 5.8 million customers that are SeFPC members. As the subcommittee is aware SEPA markets the energy and capacity that is generated from the Federal reservoir projects in the Southeast. The SeFPC represents some 238 rural cooperatives and municipally owned electric systems in the States of Alabama, Georgia, Mississippi, Kentucky, North Carolina, South Carolina, Florida, Virginia, and West Virginia, which purchase power from SEPA. In some cases, SEPA supplies as much as 25 percent of the power and 10 percent of the energy needs of SeFPC customers.

ADMINISTRATION'S PROPOSAL TO PHASE OUT PURCHASED POWER AND WHEELING

The administration has proposed significant reductions in PP&W funding for SEPA and the other PMAs in fiscal year 2004 and has recommended the elimination of all Federal funding for PP&W by the end of 2004. The President's proposal would reduce PP&W funding for SEPA by over 55 percent in the upcoming fiscal year, from the current level of $34.5 million to the proposed level of $15 million. This proposal is very troubling to the SeFPC. The failure to fund these important programs under SEPA's jurisdiction could have dire consequences for the Federal power program in the Southeast and Federal preference power generally.

If the President's proposal becomes law, the power supply for the not-for-profit distributors and their customers throughout the Southeast will be severely disrupted. SEPA's customers also will likely lose the benefits of long-term contractual arrangements for transmission and purchased power. Because SEPA does not own its own transmission lines, the loss of PP&W appropriations will force us to arrange our own transmission services, including delivery services from SEPA projects. Also, elimination of SEPA's purchased power funds will force us to buy our power from sources other than SEPA at higher prices, which will be passed directly to our customers.

It is important to note that the President's proposal would yield no cost savings for the Federal Government. The use of PP&W revenues is a discretionary function with no budgetary impact. PP&W funds are repaid annually by preference customers.

Thank you in advance for considering our comments on the President's proposed fiscal year 2004 budget for SEPA.

PREPARED STATEMENT OF THE AMERICAN MUSEUM OF NATURAL HISTORY

ABOUT THE AMERICAN MUSEUM OF NATURAL HISTORY

The American Museum of Natural History (AMNH) is one of the Nation's preeminent institutions for scientific research and public education. Since its founding in 1869, the Museum has pursued its mission to "discover, interpret, and dissemi-

nate—through scientific research and education—knowledge about human cultures, the natural world, and the universe." It is renowned for its exhibitions and collections of more than 32 million specimens and cultural artifacts. With nearly 4 million annual visitors—approximately half of them children—its audience is one of the largest and most diverse of any museum in the country. Museum scientists conduct groundbreaking research in fields ranging from all branches of zoology, comparative genomics, and bioinformatics to earth, space, and environmental sciences and biodiversity conservation. Their work forms the basis for all the Museum's activities that seek to explain complex issues and help people to understand the events and processes that created and continue to shape the Earth, life and civilization on this planet, and the universe beyond.

Today more than 200 Museum scientists with internationally recognized expertise, led by 46 curators, conduct laboratory and collections-based research programs as well as fieldwork and training. Scientists in five divisions (Anthropology; Earth, Planetary, and Space Sciences; Invertebrate Zoology; Paleontology; and Vertebrate Zoology) are sequencing DNA and creating new computational tools to retrace the evolutionary tree, documenting changes in the environment, making new discoveries in the fossil record, and describing human culture in all its variety. The Museum also conducts graduate training programs in conjunction with a host of distinguished universities, supports doctoral and postdoctoral scientists with highly competitive research fellowships, and offers talented undergraduates an opportunity to work with Museum scientists.

The AMNH collections of some 32 million natural specimens and cultural artifacts are a major scientific resource for Museum scientists as well as for more than 250 national and international visiting scientists each year. They often include endangered and extinct species as well as many of the only known "type specimens," or examples of species by which all other finds are compared. Within the collections are many spectacular individual collections, including the world's most comprehensive collections of dinosaurs, fossil mammals, Northwest Coast and Siberian cultural artifacts, North American butterflies, spiders, Australian and Chinese amphibians, reptiles, fishes, and one of the world's most important bird collections. The Museum has also established a super-cold storage facility, described below, for collection of tissue samples with preserved DNA for genomics research. Collections such as these are historical libraries of expertly identified and documented examples of species and artifacts, providing an irreplaceable record of life on earth.

Permanent and temporary exhibits—from the Rose Center for Earth and Space to The Genomic Revolution, discussed below—are among the Museum's most potent educational tools, interpreting the work of Museum scientists, highlighting its collections, addressing relevant scientific and cultural issues, and presenting cutting edge content in a way that is accessible to all ages, learning levels, and backgrounds. The Education Department builds these exhibitions, as well as the Museum's unique resources, to offer rich programming dedicated to increasing scientific literacy, to encouraging students to pursue science and museum careers, and to providing a forum for exploring the world's cultures. These programs attract more than 400,000 students and teachers on school visits and more than 5,000 teachers for special professional development opportunities. The Museum is also reaching beyond its walls: through its National Center for Science Literacy, Education, and Technology, launched in 1997 in partnership with NASA, it is exploiting new technologies to bring materials, and programs into homes, schools, museums, and community organizations around the Nation.

SUPPORT FOR DEPARTMENT OF ENERGY SCIENCE MISSION AND GOALS

As one of the world's preeminent science organizations, DOE's primary strategic goals include maintaining a world class scientific research capability and enhancing homeland defense. Its leading science program supports fundamental research in energy, matter, and the basic forces of nature and the advanced computational and networking tools critical to research. The American Museum shares DOE's fundamental commitments to cutting-edge research and technology in support of science and education, and it seeks, in concert with DOE, to leverage complementary resources and to advance our many shared science goals.

Genomic Science

DOE is a leader in genomics research, advanced sequencing technologies, and instrumentation. With the historic completion of the first draft of the human genome, its work on the frontiers of genome science continues, including research in energy-related biology, comparative genomics, organisms' responses to biological and environmental cues, and experimental and computational approaches to predictive understanding of microbes and microbial communities. Genomics research remains

critically important to the DOE mission, not only by helping to protect against bioterrorism but also by contributing to the broad goal of developing "a fundamental, comprehensive, and systematic understanding of life."

The American Museum is deeply engaged in genome research closely tied to DOE's mission areas and research priorities. It is home of one of the world's largest natural history collections, a preeminent molecular research program, and singular research resources in frozen tissue samples and cluster computing. In the era of genomics, museum collections have become critical baseline resources for the assessment of genetic diversity of natural populations; studying genomic data in a natural history context makes it possible to more fully understand the impacts of new discoveries in genomics and molecular biology. Genomes of the simplest organisms provide a window into the fundamental mechanics of life, and understanding their natural capabilities can help solve challenges in biodefense, medicine and health care, energy supply, and environmental cleanup.

Frozen Tissue Collection

In support of its molecular program, the Museum has launched an expansion of its collections to include biological tissues and isolated DNA preserved in a super-cold storage facility. Because this collection preserves genetic material and gene products from rare and endangered organisms that may become extinct before science fully exploits their potential, it is an invaluable resource for research in many fields including genetics, comparative genomics, and biodefense. Capable of housing 1 million specimens, it will be the largest super-cold tissue collection of its kind. In the past 2 years, 15,000 specimens not available at any other institute or facility have already accessioned. At the same time, the Museum is pioneering the development of collection and storage protocols for such collections. To maximize use and utility of the facility for researchers worldwide, the Museum is also developing a sophisticated website and online database that includes collection information and digitized images.

Cluster Computing

DOE science programs are committed to "providing extraordinary tools for extraordinary science." The Museum, too, is a leader in developing computational tools, as parallel computing is an essential enabling technology for phylogenetic (evolutionary) analysis and intensive, efficient sampling of a wide array of study organisms. Museum scientists have constructed an in-house 560-processor computing cluster, and are in the process of upgrading it to 128 dual CPU nodes with 2 Gb/sec Myrinet interconnections. It is the fastest parallel computing cluster in an evolutionary biology laboratory and one of the fastest installed in a non-defense environment.

Over the past 9 years, Museum scientists have taken a leadership role in developing and applying new computational approaches to deciphering evolutionary relationships through time and across species; their pioneering efforts in cluster computing, algorithm development, and evolutionary theory have been widely recognized and commended for their broad applicability for biology as a whole. The bioinformatics tools Museum scientists are creating will not only help to generate evolutionary scenarios, but also will inform and make more efficient large genome sequencing efforts. Many of the parallel algorithms and implementations (especially cluster-based) will be applicable in other informatics contexts such as annotation and assembly, breakpoint analysis, and non-genomic areas of evolutionary biology as well as in other disciplines.

Institute of Comparative Genomics

Building on its strengths in comparative genomics, and in concert with the scientific goals of DOE, the Museum has established an Institute for Comparative Genomics so as to contribute its unique resources and expertise to the Nation's genomic research enterprise. Equipped with its molecular labs with DNA sequencers, vast biological collections, researchers with expertise in the methods of comparative biology, and the parallel computing facility and frozen tissue collection described above, the Institute is positioned to be one of the world's premier research facilities for mapping the genome across a comprehensive spectrum of life forms.

The Institute has already established a record of significant research achievements, which include obtaining a patent for innovative approach to analyzing microarray data that will facilitate improved diagnoses of diseases such as cancer and development of drugs to treat such diseases, developing computational techniques to analyze chromosomal sequence data, and winning grants to lead international research teams in assembling the "tree of life." In partnership with the Department of Energy, with the support of a fiscal year 2002 appropriation, Dr. Rob

DeSalle is conducting research that is making notable progress in advancing understanding of bacterial genomics and the evolution of pathogenicity.

These accomplishments are complemented by the Museum's ambitious agenda of genomics-related exhibitions, conferences, and public education programming, including the landmark exhibition, The Genomic Revolution in 2001. The exhibition, attended by approximately 500,000 visitors and now touring nationally, examines the revolution taking place in molecular biology and its impact on modern science and technology, natural history, biodiversity, and our everyday lives. We have also hosted several international conferences on important genomics topics: Sequencing the Human Genome: New Frontiers in Science and Technology, in Fall 2000; Conservation Genetics in the Age of Genomics in Spring 2001; New Directions in Cluster Computing in June 2001; and in 2002, an international meeting to examine current knowledge of life's history, Assembling the Tree of Life: Science, Relevance, and Challenges.

As it moves forward, the Institute, working in cooperation with New York's outstanding biomedical research and educational institutions, is focusing on molecular and microbial systematics, on expanding our understanding of the evolution of life on earth and the evolution of critical organismal form and function through analysis of the genomes of selected microbes and other non-human organisms, and on constructing large genomic databases. Development of Institute activities will entail expanding expertise in microbial systematics and the molecular laboratory program that now trains dozens of graduate students every year; utilizing the latest sequencing technologies; employing parallel computing applications that allow scientists to solve combinatorially complex problems involving large real world datasets; and developing of K–12 curriculum materials, scientific conferences, and public exhibits.

The interests and expertise of DOE and the Museum intersect in particular in these areas of comparative and microbial genomics. One of the goals of DOE's Human Genome Project is to learn about the relevance to humans of nonhuman organisms' DNA sequences. DOE science also targets an area in which the Museum is expanding its expertise—microbial genomics, the study of organisms that have survived and thrived in extreme and inhospitable environments. DOE's Genomes to Life and microbial genome programs are based on the understanding that genomes, especially those of the simplest organisms, provide a window into the fundamental mechanics of life. The Genomes to Life program is also committed to developing the computational tools to integrate data, to understand data, and to model complex biological systems. The Institute's programs in comparative and microbial genomics and computation could provide vital advances in these endeavors and support DOE's biological and environmental research function (the BER account).

We seek $5 million for support of the Institute of Comparative Genomics to partner with DOE and to contribute its unique capacities to advancing shared priority areas of genomic science. The Institute supports DOE's biological and environmental research function (the BER account); and its diverse strengths and unique resources in comparative genomics will help to further DOE's goals for building a scientific research capacity to enable advances and discoveries in DOE science through world-class research. In addition, further development of the Museum's super-cold tissue collection will increase enormously the possibilities for DNA research and provide an invaluable international scientific resource. Our online collection database will ensure public access to genomics information, furthering DOE's own goals for fostering public understanding of human genomics and the fundamental building blocks of life. The Museum intends to support the Institute with funds from non-Federal as well as Federal sources and proposes to use the requested $5 million towards overall costs for the Institute's microbial genomics research program, including expansion and renovation of the molecular laboratories to accommodate additional investigators and students, research instrumentation, and scientific outreach and dissemination (website, online databases).

PREPARED STATEMENT OF THE UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY

The following is the testimony of the University of Medicine and Dentistry of New Jersey (UMDNJ), the largest freestanding public university of the health sciences in the Nation. The University is located on five statewide campuses and contains three medical schools, and schools of dentistry, nursing, health related professions, public health and graduate biomedical sciences. UMDNJ also comprises a University-owned acute care hospital, three core teaching hospitals, an integrated behavioral health care delivery system, a statewide system for managed care and affiliations with more than 200 health care and educational institutions statewide.

We appreciate the opportunity to bring to your attention our priority projects that are consistent with the biomedical research mission of the Department of Energy. These projects are statewide in scope and include collaborations both within the University system and with our affiliates.

Our first priority is the development of the Child Health Institute of New Jersey at the UMDNJ-Robert Wood Johnson Medical School (RWJMS) in New Brunswick. As part of the State's public higher education system, the medical school encompasses 21 basic science and clinical departments and integrates diverse clinical programs conducted at 34 hospital affiliates and numerous ambulatory care sites in the region. RWJMS ranks among the top one-third of medical schools in the Nation in terms of grant support per faculty member. It is home to The Cancer Institute of New Jersey, the only NCI-designated comprehensive cancer center in New Jersey; The Center for Advanced Biotechnology and Medicine; the Environmental and Occupational Health Sciences Institute, one of the leading environmental health programs in the country; and the Child Health Institute of New Jersey.

The mission of the Child Health Institute is to build a comprehensive biomedical research center focused on the health and wellness of children. In this program, medical researchers direct efforts towards the prevention and cure of environmental and genetic diseases of infants and children at molecular and cellular levels.

The Child Health Institute is integral to the long-term plan for the enhancement of research at UMDNJ-RWJMS in developmental genetics, particularly as it relates to disorders that affect a child's development and growth, physically and cognitively. The program will enable the medical school to expand and strengthen basic research efforts with clinical departments at the Robert Wood Johnson University Hospital (RWJUH) and, in particular, those involved with the new Children's Hospital at RWJUH especially Obstetrics, Pediatrics, Neurology, Surgery and Psychiatry. The construction of the Child Health Institute at RWJMS will fill a critical gap through the expansion, by new recruitment, of a intellectual base upon which basic molecular programs in child development and health will build.

At the Child Health Institute, research will serve as the basis for new treatments, therapies and cures for such devastating and debilitating childhood syndromes as asthma, autism, diabetes, muscular dystrophy, birth defects and neuro-developmental disorders. Research will focus on the molecular and genetic mechanisms which direct the development of human form, subsequent growth, and acquisition of function. Broadly, the faculty and students will investigate disorders that occur during the process of development to discover and study the genes contributing to developmental disabilities and childhood diseases; to determine how genes and the environment interact to cause childhood diseases; and to identify the causes and possible avenues of treatment of cognitive disorders broadly found among conditions such as mental retardation, autism and related neurological disorders.

Normal child development is a water dependent process, reflecting water quality, quantity and its "management" by cells and tissues. Access to uncontaminated water is at the base of the tree of life. Pollution of aquatic ecosystems poses a serious threat to the entire ecosystem and studying how a toxin affects embryonic development is central to understanding the risks pollutants represent, whether derived from pesticides, industrial run-off, acid rain or landfills. In multiple ways, the embryo is a sentinel for environmental toxins. Research at the Child Health Institute will focus on molecular mechanisms of early embryonic development, a natural, but vulnerable water-based environment.

The Child Health Institute of New Jersey builds on existing significant strengths in genetic, environmental, and neurosciences research within the UMDNJ-RWJMS and associated joint programs with Rutgers University and other research institutes. For example, the Environmental and Occupational Health Sciences Institute (EOHSI) is a National Institute of Environmental Health Sciences (NIEHS) recognized center of excellence which investigates environmental influences on normal and disordered functions; the Cancer Institute of New Jersey (CINJ), a National Cancer Institute-designated Comprehensive Cancer Center, studies disordered cell growth; and the Center for Advanced Biotechnology and Medicine (CABM) characterizes gene structure and function.

The CHI will act as a magnet for additional growth in research and healthcare program development in New Jersey. The Institute will encompass 150,000 gross square feet and will house more than 40 research laboratories and associated support facilities. Fourteen senior faculty will direct teams of M.D. and Ph.D. researchers, visiting scientists, postdoctoral fellows, graduate students and technicians for a full complement of some 130 employees.

Construction costs for the Institute are estimated to be approximately $72 million; approximately half of this figure is generally associated with local employment. At maturity, the Institute is expected to attract $7 to $9 million dollars of new research

funding annually. The Institute's total annual operating budget is projected to be $10 to $12 million, with total economic impact on the New Brunswick area projected to be many times this amount.

The Child Health Institute has assembled over $40 million to fund its building and programs through a strong partnership among private, corporate and government entitities. The support of the Congress has resulted in more than $6 million in directed appropriations for the CHI over the past 4 years, including appropriations from this committee in fiscal years 2001 and 2002. We respectfully seek $2 million to complement support already received in Federal participation to further advance the development of the Child Health Institute of New Jersey. Requested funding will be utilized for the purchase of analytical equipment, including laser scanning and photon microscopes, mass spectometer, and ventilated rack systems.

Our second priority is the Dean and Betty Gallo Prostate Cancer Center (GPCC), established at the Cancer Institute of New Jersey (CINJ) with the goal of eradicating prostate cancer and improving the lives of men at risk for the disease through research, treatment, education and prevention. The Center was founded in memory of Rep. Dean Gallo, a New Jersey Congressman who died of prostate cancer diagnosed at an advanced stage.

Prostate cancer is a devastating health problem in the Nation and in the State of New Jersey, which continues to experience one of the highest rate of cancer incidence and mortality. Prostate cancer is the most common form of cancer, other than skin cancer, among men in the United States and is second only to lung cancer as a cause of cancer-related death among men. The American Cancer Society estimates that 189,000 new cases of prostate cancer will be diagnosed and approximately 30,200 men will die of the disease in 2002. Statistics released by the Centers for Disease Control in 2002 placed New Jersey fourth in the Nation for the rate or prostate cancer incidence.

The GPCC unites a team of outstanding researchers and clinicians who are committed to high quality basic research, translation of innovative research to the clinic, exceptional patient care, and improving public education and awareness of prostate cancer. GPCC is a center of excellence of the Cancer Institute of New Jersey, which is the only NCI-designated comprehensive cancer center in the State. GPCC efforts are focused in four major areas: (1) Basic, Clinical and Translational Research; (2) Epidemiology and Cancer Control; (3) Comprehensive Patient Care; and (4) Education and Outreach.

Basic, Clinical and Translational Research.—GPCC scientists are investigating the molecular, genetic and environmental factors that are responsible for prostate cancer initiation and progression. Appropriate model systems developed by Dr. Abate-Shen at the GPCC are being utilized to facilitate the design and implementation of novel strategies for prevention and treatment. GPCC is fostering multi-disciplinary efforts that will lead to the effective translation of basic research to improved patient care and novel clinical trials. The translational research program developed at the Gallo Prostate Cancer Center has been recognized at national scientific meetings such as those organized by the American Association for Clinical Research.

Epidemiology and Cancer Control.—Additional research activities of the GPCC seek to understand the etiology of prostate cancer susceptibility and to find effective modalities for prevention of prostate cancer.

Comprehensive Patient Care.—Exceptional patient care is provided through a multi-disciplinary patient care team in the areas of urological oncology, radiation oncology and medical oncology for each patient during all stages of the disease. Currently the Center has fourteen active clinical trials that provide our patients with novel clinical approaches for treating all stages of prostate cancer. Seventy patients were enrolled in clinical trials in 2002.

Education and Outreach.—GPCC is continuing to educate the public throughout the State of New Jersey about the importance of early detection of prostate cancer, particularly in underserved communities where there is a population at high risk for the disease. The Gallo Center has developed an extensive network of partnerships with organizations such as the 100 Black Men of New Jersey, the Men's Health Network, the National Black Leadership Initiative on Cancer, and the Jewish Renaissance Foundation to offer prostate cancer screenings in minority and other underserved communities. The goal is to extend prostate cancer screening services to all 21 New Jersey counties by 2004.

To date, the Gallo Center has raised over $12.2 million in external public and private funding sources (including $3 million in support from this committee) to expand its research, cancer control and public outreach initiatives. The UMDNJ commitment to the overall development of The Cancer Institute of New Jersey and of the Gallo Center total over $83 million. This important funding has enabled us to

establish a world-class program in prostate cancer research that includes publications in prestigious journals such as the New England Journal of Medicine, Genes and Development, Cancer, Cancer Research, and Clinical Cancer Research.

Our fiscal year 2004 initiative is designed to support the further expansion of the Center's basic and clinical research initiatives, public outreach and cancer control efforts in both the Newark and north Jersey region, and the Camden/southern New Jersey region where we can increase the availability of cancer programs to the state's major population regions. Support of $3 million is sought to strengthen the Center's basic and clinical research programs. This additional funding will also allow us to enhance our treatment of patients with prostate cancer through several new clinical trials for patients at all stages of the disease. An additional level of funding support of $3 million is requested to expand the Center's public outreach and screening activities to reach vulnerable populations in the greater Newark and Camden communities and in other locations across the State.

We thank this committee for its strong support of biomedical research and for the University's programs.

PREPARED STATEMENT OF THE AMERICAN PUBLIC POWER ASSOCIATION

The American Public Power Association (APPA) is the national service organization representing the interests of over 2,000 municipal and other State and locally owned utilities throughout the United States (all but Hawaii). Collectively, public power utilities deliver electricity to one of every seven electric consumers (about 40 million people), serving some of the Nation's largest cities. However, the vast majority of APPA's members serve communities with populations of 10,000 people or less.

We appreciate the opportunity to submit this statement outlining our fiscal year 2004 funding priorities within the Energy and Water Development Subcommittee's jurisdiction.

RENEWABLE ENERGY PRODUCTION INCENTIVE PROGRAM (REPI)

The Department of Energy's REPI program was created in 1992's Energy Policy Act (EPAct) as a counterpart to the renewable energy production tax credits made available to for-profit utilities. EPAct authorizes the Department of Energy (DOE) to make direct payments to not-for-profit public power systems and rural electric cooperatives at the rate of 1.5 cents per kWh (now closer to 1.7 cents when adjusted for inflation) from electricity generated from solar, wind, geothermal and biomass projects. According to DOE sources, there is a backlog of close to $40 million in requests for REPI funding for 2003. Taking a step in the right direction, Congress appropriated $5 million for REPI for fiscal year 2003, a 25 percent increase over DOE's request of $4 million for fiscal year 2003. Despite Congress' allocation and the demonstrated need, however, DOE has again asked for only $4 million for fiscal year 2004, citing budgetary constraints.

Fully funding REPI is an issue of comparability for 25 percent of the utility sector and the communities these systems serve. For example, in 2000, for-profit utilities and private developers received about $58 million in renewable energy tax credits for wind power alone. The same year, REPI subscribers received only $3.99 million for renewable energy projects of all types. While APPA supports increasing renewable energy use throughout the utility sector, our member utilities simply must receive comparable federally sanctioned incentives to help in that effort.

We believe Congress was committed 10 years ago to removing economic barriers to enable all communities to benefit from the production of more renewable and clean energy. We also believe that Congress is equally committed today—not only to producing more renewable energy, but also to diversifying America's portfolio of fuels, decreasing our reliance on foreign sources of energy, and reducing greenhouse gas emissions. In fact, under a fully funded REPI program, close to 60 million metric tons of carbon equivalent could be reduced through the development existing landfills into landfill-gas-to-energy projects. In order to ensure that these efforts and other renewable energy goals are achievable throughout the electric utility industry, Congress must provide an increase for REPI.

RENEWABLE ENERGY PROGRAMS

As is demonstrated by our strong support for REPI, APPA believes that investing in energy efficiency and renewable energy programs is critical. We urge the subcommittee to support adequate funding to ensure that renewable energy usage continues to increase as part of the portfolio of fuel options available to our Nation's electric utilities.

We appreciate the subcommittee's recognition of the merits of these programs as demonstrated by its passage of a substantial increase over the President's fiscal year 2003 budget request. We encourage your continued support of these vital renewable energy programs.

FEDERAL POWER MARKETING ADMINISTRATIONS (PMAS)

APPA urges the subcommittee to increase the use of receipts for the Purchase Power and Wheeling (PP&W) programs of the Western Area Power Administration (WAPA), the Southeastern Power Administration (SEPA) and the Southwestern Power Administration (SWPA) in fiscal year 2004.

The fiscal year 2004 budget proposes to drastically curtail the abilities of WAPA, SEPA, and SWPA to use receipts—which do not score—to provide these services to customers who cover these costs in their electric bills. Appropriations are no longer needed to initiate PP&W process, however, the subcommittee does establish ceilings on the use of receipts for this important function.

The PP&W program is important because hydroelectric generation and customer use are rarely in exact balance—both vary from hour-to-hour and day-to-day. The PMAs often make purchases in the spot market to "firm" the resource when generation is less than the amount contracted for delivery. And, in low-water years, which have been all too frequent recently, the PMAs often purchase additional power to fulfill their contracts with customers. Wheeling is the charge that the PMAs pay to move electricity over a non-Federal transmission line. It also reduces the need to build additional Federal transmission facilities.

Therefore, we request that the subcommittee authorize the use of receipts in fiscal year 2004 as follows:

—Western Area Power Administration (WAPA): $186.1 million needed—includes $20 million recommended by OMB in the budget plus a $166.1 million authorization in the fiscal year 2004 bill.

—Southeastern Power Administration (SEPA): $34.4 million needed—includes $15 million recommended by OMB plus $19.4 million authorization in the fiscal year 2004 bill.

—Southwestern Power Administration (SWPA): $2.8 million needed—includes $288,000 recommended by OMB plus $2.6 million authorization in the fiscal year 2004 bill.

STORAGE FOR HIGH-LEVEL NUCLEAR WASTE

Since 1982, the Nation's electricity customers have committed $16.5 billion to the Nuclear Waste Fund in order to finance centralized Federal management of spent nuclear fuel used for commercial purposes. We therefore support the administration's efforts to finalize the location of a permanent storage site at Yucca Mountain, Nevada, and we support its request of $591 million for Civilian Radioactive Waste Management in fiscal year 2004 to further this undertaking.

ADVANCED HYDROPOWER TURBINE PROGRAM

APPA supports the administration's budget request of $7.5 million for the Advanced Hydropower Turbine Program for fiscal year 2004. This program is a joint industry-government cost-share effort to develop a hydroelectric turbine that will protect fish and other aquatic habitats while continuing to allow for the production of emissions free hydroelectric power.

During the next 15 years, 220 hydroelectric projects will seek new licenses from the Federal Energy Regulatory Commission (FERC). Publicly owned projects constitute 50 percent of the total capacity that will be up for renewal. Many of these projects were originally licensed over 50 years ago. Newly imposed licensing conditions can cost hydro project owners 10 to 15 percent of power generation. A new, improved turbine could help assure that any environmental conditions imposed at relicensing in the form of new conditioning, fish passages or reduced flows are not accomplished at the expense of emissions-free, renewable energy production. This is particularly important given the increasingly competitive market in which electric utilities operate today. Flow levels will affect the economics of each of these projects and many will be unable to compete if the current trend toward flow reduction continues.

FEDERAL ENERGY REGULATORY COMMISSION (FERC)

The Federal Energy Regulatory Commission (FERC) has requested $199.4 million for fiscal year 2004 for its overall operations. APPA supports this request. The FERC is charged with regulating certain interstate aspects of the natural gas, oil

pipeline, hydropower, and electric utility industries. Such regulation includes issuing licenses and certificates for construction of facilities, approving rates, inspecting dams, implementing compliance and enforcement activities, and providing other services to regulated businesses. These businesses pay fees and charges that cover most of the cost of the government's operations.

NAVAJO ELECTRIFICATION DEMONSTRATION PROGRAM

APPA supports full funding for the Navajo Electrification Demonstration Program at its $15 million authorized funding level for fiscal year 2004 and for each succeeding year of its authorization (through 2006). The purpose of the program is to provide electric power to the estimated 18,000 occupied structures in the Navajo Nation that lack electric power.

The Navajo Nation is served by the Navajo Tribal Utility Authority (NTUA), an APPA member. NTUA provides electric, natural gas, water, wastewater treatment, and photovoltaic services throughout the Navajo Indian Reservations in the States of Arizona, New Mexico and Utah. Fully funding the Navajo Electrification Demonstration Program will significantly improve the quality of life for the people of the Navajo Nation.

NATIONAL CLIMATE CHANGE TECHNOLOGY INITIATIVE

APPA supports the administration's efforts to promote greenhouse gas reductions through voluntary programs and investments in new technologies. We therefore support DOE's request of $15 million for fiscal year 2004 to spur innovation of technologies that will reduce, avoid, or capture greenhouse gas emissions.

PREPARED STATEMENT OF THE UNIVERSITY OF MICHIGAN, UNIVERSITY OF TENNESSEE, UNIVERSITY OF TEXAS, UNIVERSITY OF FLORIDA, AND UNIVERSITY OF NEW MEXICO

RESEARCH, EDUCATION, AND DOE MISSION SUPPORT

The U.S. Department of Energy (DOE) has provided support to the DOE University Research Program in Robotics to pursue long range research leading to the "development and deployment of advanced robotic systems capable of reducing human exposure to hazardous environments, and of performing a broad spectrum of tasks more safely and effectively than utilizing humans."

The DOE University Research Program in Robotics (URPR) has proven highly effective in technology innovation, education, and DOE mission support. The URPR has incorporated mission-oriented university research into DOE, and, through close collaboration with the DOE sites, provides an avenue for developing creative solutions to problems of vital importance to DOE.

The URPR would like to thank the Committee members for their historically strong support of this successful program. Recognizing the shift in national priorities post-9/11/01, the URPR has begun to include new applications as the target for its technology development. Funding was equally split between EM and NNSA during fiscal year 2003. This enabled the completion of dedicated research for specific EM projects while integrating into the NNSA organization.

REQUEST FOR THE COMMITTEE

We request that the Committee include language for the University Research Program in Robotics (URPR) research funds at its historic level of $4.35 million to continue developing safer, less expensive, and more capable robotic technology for NNSA applications.

DEVELOPING ADVANCED ROBOTICS FOR DOE AND THE NATION

Develop Robotic Solutions for Work in Potentially Hazardous Environments

The goal of this program is to invent and utilize state-of-the-art robotic technology in order to remove humans from potentially hazardous environments and expedite remediation efforts considered essential. Established by DOE in fiscal year 1987 to support advanced nuclear reactor concepts, the project was moved to EM to support the higher priority needs in environmental restoration. Reflecting the change in national priorities post-9/11, the URPR began supporting NNSA applications during fiscal year 2003. The project has produced an impressive array of technological innovations, which have been incorporated into robotic solutions being employed across Federal and commercial sectors. This successful program demonstrates efficient technology innovation while educating tomorrow's technologists, inventing our coun-

try's intelligent machine systems technology of the next century, and meeting today's applied research needs for DOE.

The URPR represents a DOE-sponsored consortium of five research universities (Florida, Michigan, New Mexico, Tennessee, and Texas) of long standing, working on the science of remote systems technologies to advance their effectiveness in performing physical tasks in hazardous environments associated with the DOE nuclear sites. The work of these universities is now widely recognized as some of the best in the field (the creation of spin-off companies, deployment requests from FEMA at Ground Zero, wins in national technology competitions, archival journal articles, etc.). Some of the focus technologies include innovative mobile platforms and their semi-autonomous navigation, kinesthetic input to teleoperation systems, simulation-based design and control, manipulation of unwieldy objects, machine vision and scene assessment for world modeling, improved radiation hardening of electronic components, and integration technology to assist in the assessment and deployment of complete solutions in the field. In addition to DOE specific applications, the team is increasingly able to deploy their technology for DOD applications (aircraft carrier weapon's elevator, anti-terrorism systems, submarine operations, etc.), for Homeland Security applications (surveillance and monitoring), for commercial applications (manufacturing, building construction, space) and for human augmentation and training (micro-surgery, rehabilitation of humans, reduction of drudgery). We constantly seek to explore strategic partnerships and utilize existing deployment resources to more rapidly export this technology to the DOE sites that could most benefit from this new technology.

Making the Nation Safer

In the aftermath of the 9/11 tragedy, our Nation has engaged in a long-term war to counter terrorism. The National Research Council recently [2002] published a thorough study of the role of science and technology in countering terrorism entitled Making the Nation Safer. This book represents the collective thoughts of 164 top scientists and engineers focusing on homeland security of the United States. It represents the combined output of the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council. It identifies urgent research opportunities. Of the seven cross-cutting technology challenges identified by the committee, autonomous mobile robotic technologies were highlighted. "Continued development and use of robotic platforms will enable the deployment of mobile sensor networks for threat detection and intelligence collection. Robotic technologies can also assist humans and such activities as ordnance disposal, decontamination, debris removal, and firefighting." Robotic technologies, cited as a "critical long-term research need," are featured throughout the individual chapters that address ways for mitigating our society's vulnerabilities to terrorism and responding to an attack.

Our Nation's technology experts recommend: "Agencies with experience in robotics, such as DARPA, should support research on all elements of robotic systems—including sensors, networks, and data communication and analysis. The aim would be to develop robots to assist in chemical (and biological or radiological) defense, thereby reducing hazards to humans and increasing the capabilities of defensive systems." [Rec. 4.8]

In addition, the report identifies the need to sustain the Nation's scientific and engineering talent base and recommends [Rec. 13.4] a human resource development program to increase training in those fields consistent with the government's long-term priorities for homeland security research. The report exhorts that "expanding the number of American scientists and engineers is particularly important."

And directly related to our work in radiation sensing and imaging is the recommendation [Rec. 2.6] "A focused and coordinated near-term effort should be made by the Department of Energy, through its National Nuclear Security Administration, and by the Department of Defense, through its Defense Threat Reduction Agency, to evaluate and improve the efficacy of special nuclear material detection systems that could be deployed at strategic choke points for homeland defense." And [Rec 2.7] "Research and development support should be provided by the Department of Energy and Department of Defense for improving the technological capabilities of special nuclear material detection systems, especially for detecting highly enriched uranium." Our ongoing URPR research supports these tasks.

In summary, the University Research Program in Robotics is a key player in executing the recommendations for making the Nation safer. We commend the enlightened vision of those who have historically recognized the importance of the URPR and supported this project.

INNOVATION, EDUCATION, AND DOE MISSION SUPPORT

The URPR's strategic mission is to make significant advances in our Nation's robotic and manufacturing technology base while emphasizing: education, technology innovation through basic R&D, and DOE mission support. The URPR has demonstrated that the advantages of operating as a consortium are significant. The institutions of the URPR partition the technical development into manageable sections which allow each university to concentrate within their area of expertise (efficiently maintaining world-class levels of excellence) while relying on their partners to supply supporting concentrations. With full support of the host universities, this effort naturally generated the in-depth human and equipment capital required by the DOE community. Practically, the long-term distributed interaction and planning among these universities in concert with the DOE labs and associated industry allows for effective technology development (with software and equipment compatibility and portability), for a vigorous and full response to application requirements (component technologies, system technologies, deployment issues, etc.), and for the supported application of the technology. Considering the remarkable achievements of URPR over its history, the URPR is in the ideal position to execute its prominent role in education, technology innovation, and DOE mission support.

DOE Mission Contribution—Robotic Technologies

Since its inception, DOE has promoted robotics as a necessary enabling technology to accomplish its mission. The motives for undertaking a comprehensive R&D effort in the application of advanced robotics to tasks in hazardous environments reflect economic considerations, efficiency, and health and safety concerns. The URPR is DOE's only needs-driven research program to develop new remote systems technologies to support the DOE thrust areas. In contrast, DOD, NIH, and NASA continue to prove the benefits of much larger mission-oriented robotics programs. During this difficult time of uncertainty, we need Congressional support to continue this very successful national program in technology innovation for advanced robotic systems.

Program Request for the Committee

During fiscal year 2003, the URPR provided vital contributions to education and research while addressing DOE technology needs. The motivation for this project remains steadfast—removing humans from hazardous environments while enhancing safety, reducing costs, and increasing response effectiveness. The URPR will begin supporting NNSA missions during fiscal year 2004. Thus, the DOE fiscal year 2004 budget submission could not include the URPR and Committee language is needed to continue the technology missions of the URPR at the fiscal year 2002 and fiscal year 2003 level of $4.35 million.

PREPARED STATEMENT OF THE CALIFORNIA GOVERNMENT AND PRIVATE SECTOR COALITION FOR OPERATION CLEAN AIR'S (OCA) SUSTAINABLE INCENTIVE PROGRAM

Mr. Chairman and Members of the Subcommittee, on behalf of the California Government and Private Sector Coalition for Operation Clean Air's (OCA) Sustainable Incentive Program, we are pleased to submit this statement for the record in support of our fiscal year 2004 funding request of $7,000,000 for OCA as part of a Federal match for the $180 million already contributed by California State and local agencies and the private sector for incentive programs. This request consists of $5,000,000 from the Department of Energy (DOE) for biomass incentives, and $2,000,000 from DOE for alternative fuels infrastructure funding.

California's great San Joaquin Valley is in crisis. Home to 3.3 million people, its 25,000 square miles may have the most unhealthy air in the country. Even Los Angeles, long known as the smog capital of the Nation, can boast better air quality by certain standards. While peak concentrations of air pollutants are still greater in Los Angeles, for the past 4 years, the San Joaquin Valley has exceeded Los Angeles in violations of the 8-hour Federal health standard.

A combination of geography, topography, meteorology, extreme population growth, urban sprawl and a NAFTA corridor with two major highways that produce 5 million big-rig miles per day driven by diesel powered trucks, have collided to produce an air basin which over 300,000 people, nearly 10 percent of the population, suffers from chronic breathing disorders. In Fresno County, at the heart of the San Joaquin Valley, more than 16 percent of all children suffer from asthma, a rate substantially higher than any other place in California. The extreme summertime heat works to create smog even though smog-forming gases are less than half the amount in the Los Angeles basin. There is no prevailing wind to flush the natural geologic bathtub

and, as a result, pollutants and particulates stagnate, accumulate and create unhealthy air.

Degradation of human health is not the only consequence of poor quality air. Because the 8-county air pollution control district is designated as a "severe" non-attainment area, a significant number of the Valley's businesses are required to obtain permits and comply with increasingly burdensome regulations imposed by Federal and State law and the Air Pollution Control District, resulting in added cost in compliance, reporting and record keeping. At the same time, the area is burdened by unemployment rates of nearly 20 percent. Encouraging business expansion in or relocation to the San Joaquin Valley to combat unemployment is extremely difficult in the face of such regulatory burdens.

In the fall of 2003 the San Joaquin Valley Air Pollution Control District Board will decide whether to become the first District in the Nation voluntarily to declare itself an "extreme" non-attainment area. That designation, if made, will defer until 2010 the date for attainment of Federal standards of air quality, but will come at a cost of imposing permitting on thousands of more businesses and even further discouraging business expansion or relocation. Unemployment will certainly not be improved.

The San Joaquin Valley is home to the most productive agricultural land in the world. Over 350 crops are produced commercially on 27,000 farms that encompass more than 5 million irrigated acres. While the agricultural industry has made great strides at considerable expense to replace old diesel engines and manage fugitive dust and other emissions, farming cannot help but contribute to the problem. However, it is a $14 billion industry that forms the backbone of the Valley's economy.

Industry alone is not the source of the Valley's poor air. Population growth faster than the rest of the State and nearly the rest of the Nation, in an area without effective mass transit, where cheap land has led to a landscape of suburbia and sprawl, results in excessive over-reliance on the automobile. Trucking has increased dramatically with the increase in population. Other factors such as fireplace burning in the winter, open field agricultural burning because of lack of adequate alternatives, and wild fires resulting from lack of controlled burning in the nearby foothills and mountains all contribute to the problem.

Despite the challenges listed above, much progress has been made. The State has spent nearly $80 million on improvement and compliance programs. Local government and private industry have spent over $100 million on technology and compliance. As specific examples, over one half of the diesel operated irrigation pumps used by agriculture have been replaced with cleaner engines. The City of Tulare has converted its entire fleet of vehicles to natural gas as have several other private fleet operators. A $45 million federally financed comprehensive study of ozone and particulate matter is nearing completion. As a result, the number of 1-hour EPA health standard exceedences has been reduced by 40 percent since 1989.

But much more needs to be done. The District estimates that daily emissions must be reduced by 300 tons to achieve attainment. There is no single or short-term quick fix. The entire Valley is part of the problem and the entire Valley will need to be part of the solution.

Operation Clean Air is a coalition of business, government, health care and environmental groups throughout the 8-county San Joaquin Valley Air Pollution Control District and Mariposa County. Its goal is to clean the Valley's air and increase its economic prosperity. The coalition seeks to catalogue efforts that have produced positive effects and identify those strategies that could produce even greater effects if supported by sufficient resources. At the heart of its efforts will be an array of sustainable, voluntary practices and activities that can and will be undertaken by all of the residents of the San Joaquin Valley, both public and private, to improve air quality.

This unique public-private partnership has invested considerable resources in this project to date, and will continue to do so, but Federal funding is both imperative and justified to help address what is essentially an unfunded Federal mandate.

For fiscal year 2004, our Coalition is seeking funding of $2,000,000 from the Department of Energy (DOE) for the installation and operation of alternative fuels infrastructure throughout the San Joaquin Valley Air Basin. The alternative fuels infrastructure will allow for the accelerated introduction of alternatively fueled vehicles in municipal fleets, public school fleets, and private fleets. The widespread use of lower-emitting motor vehicles will provide significant improvement to air quality in the San Joaquin Valley while furthering the goals of the Department of Energy and the National Energy Policy Act. Development of alternative fuel infrastructure will augment the low-emission vehicle program by providing much needed compressed natural gas (CNG) and liquefied natural gas (CNG) fueling facilities.

For fiscal year 2004, our Coalition is also seeking funding of $5,000,000 to provide financial incentives to reduce open field burning of residual agricultural materials by utilizing biomass-energy power plants to burn this material in a controlled environment. This process will result in multiple benefits to the San Joaquin Valley by reducing air pollution and producing electrical power from a renewable source.

Thank you very much your consideration of our requests.

LETTER FROM THE COLORADO RIVER ENERGY DISTRIBUTORS ASSOCIATION (CREDA)

Tempe, Arizona, April 10, 2003.

The Honorable PETE DOMENICI,
Chairman, Appropriations Subcommittee on Energy & Water Development, 127 Dirksen Senate Office Building, Washington, DC 20510.

RE: Site Security/Anti-Terrorism Costs

DEAR CHAIRMAN DOMENICI: Please include this letter in the hearing record for the fiscal year 2004 Energy and Water Development Appropriations bill.

As you are aware, following the events of September 11, 2001, the Federal agencies responsible for providing site security and anti-terrorism measures have taken additional steps to ensure the security of Federal hydropower and transmission facilities and the security of the general public. The facilities comprising the Colorado River Storage Project provide a multitude of benefits to millions of residents in the western United States. The security of these Federal generation and delivery facilities is of national concern.

In the fiscal year 2003 Energy and Water Development Appropriations bill, the House and Senate concurred in report language which says that increased security costs in the aftermath of the events of September 11, 2001 are non-reimbursable expenses and should be funded through appropriations. This recognition is consistent with the historic treatment of such costs in crises such as Pearl Harbor.

We understand the President's fiscal year 2004 budget for the U.S. Bureau of Reclamation and the Western Area Power Administration includes additional funding for such anti-terrorism/site security activities. In light of this, the Colorado River Energy Distributors Association (CREDA) requests that the Energy and Water Development Subcommittee including the following in its fiscal year 2004 appropriations bill:

For fiscal year 2004 and each fiscal year thereafter, the increased costs of ensuring security of Reclamation generation and Western Area Power Administration delivery system facilities in the aftermath of the events of September 11, 2001 shall be appropriated, non-reimbursable and nonreturnable.

CREDA is a purchaser of Federal hydropower and transmission services produced and transmitted by the facilities of the Colorado River Storage Project. Our members serve nearly 3 million consumers in six western States. CREDA has passed a resolution advocating that the costs of increased security of these facilities should be non-reimbursable and provided by appropriated funds. In addition, the American Public Power Association (APPA), the National Rural Electric Cooperative Association (NRECA) and National Water Resources Association (NWRA) also have approved or have pending concurring resolutions.

We appreciate your support of statutory language supporting this position.

Sincerely,

LESLIE JAMES,
Executive Director.

PREPARED STATEMENT OF THE SOUTHERN STATES ENERGY BOARD

The Southern States Energy Board (SSEB) is pleased to provide this statement for the record to the House of Representatives Appropriations Subcommittee on Energy and Water Development as it considers fiscal year 2004 funding for the U.S. Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE), and specifically related to the biomass/biofuels fiscal year 2004 budget request.

The Board commends Congress for restoring $3,000,000 to the U.S. DOE Regional Biomass Energy Program (RBEP) in the fiscal year 2003 Omnibus Bill. However, SSEB and other regional governors' organizations with existing cooperative agreements to administer RBEP have yet to receive this appropriated funding. SSEB urges the Congress to restore funding for the U.S. DOE Regional Biomass Energy Program and its valuable State-based regional network at $5,000,000 in fiscal year 2004.

This line item, which would continue an appropriation that has appeared in every Federal budget since fiscal year 1983, is for the purpose of promoting economic development by fostering the use of biobased products and bioenergy, and takes advantage of and sustains existing networks and infrastructure developed throughout the Nation by the regional governors' organizations.

Energy independence is a critical element in the President's Energy Policy and can be significantly enhanced by developing viable domestic alternative energy sources. Just as the Federal energy policy seeks to encourage diverse energy sources, eliminating funding for the RBEP greatly diminishes the States' ability to participate in the development of biomass energy markets.

The Regional Biomass Energy Program was created by Congress in 1983 under the Energy and Water Development Appropriations bills Public Law 97–88 and Public Law 98–50. The enabling legislation instructed DOE to design its national program to work with States on a regional basis, taking into account regional biomass resources and energy needs. The five regional programs, working with representatives in all 50 States, Puerto Rico and the Virgin Islands, and hosted primarily by regional governors' organizations (Southern States Energy Board, Coalition of Northeastern Governors and the Council of Great Lakes Governors) are recognized nationally for their combined experience related to biomass technologies and policies.

SSEB and other regional governors' organizations hosting regional biomass energy programs are critical partners of DOE for formulating policies and facilitating private sector deployment of advanced energy technologies and practices into target markets.

Beyond the potential economic development benefits, participating States gain the opportunity to strengthen and integrate the work of energy, agriculture, forestry, environmental and other State agencies. Where issues are the same among several States, strategies can be developed to address these issues across State borders. Examples include the development of similar State legislative actions, working with the private sector with multi-State locations, and multi-State training and outreach to economize resources.

The southern States have participated in this strategy through the Southeastern Regional Biomass Energy Program (SERBEP) which has provided over $5.8 million in project funds since 1992 with a cost-share of over $21 million by leveraging State and private funding for technology development and deployment. In 1999, SSEB was selected as the "host organization" for the SERBEP and received funding through a 5-year cooperative agreement.

SSEB is an interstate compact organization with enabling legislation in each member State, covering the 16 States plus Puerto Rico and the U.S. Virgin Islands, all members of the Southern Governors Association. To assure broad based representation, SSEB is governed by a board composed of the governor and a member of the House and Senate from each member State. Over the years of administering the SERBEP, SSEB has created awareness and support for bioenergy/biobased products in the executive and legislative branches of State government, improved the effectiveness of SERBEP activities, provided more formal interaction between the States and improved policy development and coordination in particular.

We urge Congress to restore this modest but vital appropriation to protect the Federal Government's 20-year investment in RBEP, and to continue the promotion of the strong Federal interest in viable and growing biobased products and bioenergy. Restoration of the appropriation for RBEP places the Federal focus where it belongs, with the States.

PREPARED STATEMENT OF THE AMERICAN WIND ENERGY ASSOCIATION

COMMITMENT TO R&D A CRUCIAL FACTOR IN ACHIEVING WIND ENERGY MARKET POTENTIAL

U.S. Wind Energy Industry Has Shown Significant Growth Over the Last 5 Years

Continued Emphasis Needed on Small Wind Systems Used to Power Homes, Farms and Small Businesses

The American Wind Energy Association[1] (AWEA) appreciates this opportunity to provide testimony for the record on the Department of Energy's Fiscal 2004 wind

[1] The American Wind Energy Association, or AWEA, was formed in 1974. The organization represents virtually every facet of the wind industry, including turbine and component manufacturers, project developers, utilities, academicians, and interested individuals.

energy program budget before the Senate Appropriations Subcommittee on Energy and Water Development. AWEA's testimony addresses the following:

REQUEST FOR THE DEPARTMENT OF ENERGY WIND PROGRAM—$55 MILLION

AWEA requests a funding level of $55 million for the wind energy program at the Department of Energy (DOE) to support wind energy development at the national, State, and local levels. Working in conjunction with the U.S. wind industry, power producers, suppliers, industrial consumers and residential users, DOE provides important technical support, guidance, information, and limited cost-shared funding for efforts to explore and develop wind energy resources. Moreover, the research and development (R&D) program at DOE is helping to support advanced wind energy research that is attracting support from major industrial companies. AWEA would like to commend the DOE wind program for its efforts over the past year to involve the industry in its program planning process. The department has solicited input from AWEA on the direction of its program and been responsive to comments received from the industry. AWEA's fiscal year 2004 budget testimony is focused on two areas within the wind program:

Utility-Scale Wind Development

This cost-shared DOE/industry partnership program has proven to be successful and with modest annual appropriations has been helpful in significantly lowering the cost of wind power. In fact, over the past 20 years, the cost has been reduced by over 80 percent. The program is aimed at further driving down the cost of wind power to a level fully competitive with traditional electric power technologies. An important emphasis is on developing wind turbines capable of operating in areas with lower wind speeds. This would expand wind development potential by 20 times as well as allow the placement of turbines closer to existing transmission lines.

An additional important element of R&D is applied research in the areas of atmospheric physics and aerodynamics. This research can provide knowledge that is essential to achieve the industry's objectives of reducing the cost of wind energy. In addition to help lower the cost of wind power, R&D support is necessary for understanding the integration of wind energy into the Nation's power systems and better understanding the long-term wind resource and costs of operating and maintaining wind power stations. These activities will reduce the perceived risks associated with wind energy developments and thus reduce the cost of capital for project development.

Another activity required to reduce risk is an enhancement of the blade and gearbox testing capabilities at the National Wind Technology Center. The capabilities of the current facilitates are no longer sufficient to test the next generation of wind turbines currently being developed and deployed. The existing facilities have been instrumental in increasing the reliability of wind turbine blades and gearboxes, and thus contributing to the reductions in the cost of energy.

Small Wind Systems

More emphasis on DOE's small wind turbine program (machines rated at 100 kilowatts or below) will help achieve greater cost reductions and increase the availability of this energy option for homes, farms, schools, and businesses.

OVERVIEW

The U.S. wind industry is poised for significant growth. However, important challenges lay ahead. For its part, the wind industry continues to work to drive down the cost of wind-generated electricity, thereby enhancing the competitiveness of the product to electricity providers.

AWEA appreciates the support the subcommittee has provided to the DOE wind program. In fiscal year 2003, the wind program was funded at the same level requested by the Administration, $44 million. The fiscal year 2004 request by the Administration represents a slight drop from the current year budget. We believe that the funding provided by the committee should reflect the important work conducted by the wind program and respectfully request the funding be increased above the request level.

The wind energy program at the Department of Energy has a strong history of success. Over the last 20 years, the cost of wind energy has dropped by more than 80 percent, to a level that is close to competitive with traditional energy technologies. Cost shared industry/government research and development activities at DOE and the National Renewable Energy Laboratory (NREL) have played an important role in this achievement. Programs such as Wind Powering America have been educating interested parties across the country on the benefits of wind power.

Continued investment at DOE in domestic energy alternatives like wind power will allow the industry to keep driving down costs and improving the efficiency of new wind turbines. Wind energy holds the greatest potential of all non-hydro renewables to contribute to our energy needs over the next decade.

Wind energy is positioned to be an important part of the Nation's energy mix. Wind can be an important component in protecting against volatile electricity rates. The costs of a wind plant are primarily up-front capital costs, thus the price for electricity is stable over the life of the plant because the fuel, the wind, is free.

Investing in domestic, inexhaustible renewable energy technologies strengthens our national security, provides rural economic development, spurs new high-tech jobs, and helps protect the environment. There are no downsides to investing in wind and other renewables.

Finally, we want to stress the importance of the wind energy Production Tax Credit (PTC), which provides a 1.5-cent per kilowatt-hour credit for electricity produced (the credit is currently 1.8 cents adjusted for inflation). A 2-year extension of this tax credit was approved with bipartisan support in March 2002 and signed into law by the President. The credit is set to expire again on December 31, 2003. The wind industry is seeking a full long-term extension of the credit, in order to provide for more certainty and stability for the industry. Bipartisan legislation to extend the credit has been introduced in both the House and Senate.

UTILITY-SCALE WIND DEVELOPMENT

In 2002, the generating capacity from wind power grew by 10 percent, with 410 megawatts (MW) of new equipment going into service. At year's end, the installed capacity nationwide totaled 4,685 MW across 27 States, or enough power to serve about 1.3 million average U.S. households.

By mid-2003, installed wind energy capacity in the U.S. is expected to be over of 5,000 MW. Development is planned in a number of States, including New Mexico, California, Iowa and Minnesota. This new development will help spur rural economic development through new construction and manufacturing jobs, lease income for landowners, and local and county tax payments.

Cost shared research and development programs at DOE have played a key role in the development of wind energy. There is important work to be done, however, to continue the momentum the industry has built. For instance, the current generation of wind turbines have successfully lowered the cost at the best wind sites (Class 5 & 6). However, in order for wind to reach its full potential, the industry must penetrate areas with moderate wind speeds (Class 3 & 4). Tapping such areas, which are often closer to necessary transmission lines, could increase the amount of wind development by a factor of 20.

SMALL WIND SYSTEMS (100 KW AND BELOW)

AWEA believes a greater emphasis on small wind turbine research and development is needed as the demand for these turbines continues to grow. Distributed generation with small customer sited power plants has great potential for reducing energy costs, promoting competition in the marketplace, and strengthening the Nation's electrical supply network.

AWEA recognizes that some progress has been made at DOE in the small wind turbine program. However, it is vital that additional resources be dedicated to programs that will help make small wind turbines cost-competitive for homeowners. DOE has significant programs for technology development and deployment of other distributed energy technologies, but programs for small wind have received little attention despite the fact that small wind systems arguably have a greater market potential.

The high up-front costs of small wind systems make it very difficult for this technology to gain wide acceptance in the domestic market. This would change if DOE had the resources to work with America's small wind manufacturers to achieve cost reductions similar to those achieved by the large, utility-scale wind industry. In some States like California, that provide a State rebate for purchasers, small wind turbine manufacturers have experienced a surge in sales, demonstrating the public support for cost-effective small wind turbines.

Additional Funding Request: Renewable Energy Production Incentive (REPI)—$8 million

AWEA also advocates for additional funding for the Renewable Energy Production Incentive (REPI) program as a separate item within the Renewable energy budget. Year-to-year uncertainty regarding funding levels for the Renewable Energy Production Incentive (REPI) plays havoc with the long-term planning needs of running a

municipally owned utility. Due to insufficient funds for the program, full payments for eligible projects have not been made for a number of years. For this reason, AWEA suggests the Congress work with the Department of Energy to develop long-range alternatives to annual funding of this program.

The REPI program, authorized by the Energy Policy Act of 1992, encourages municipally owned utilities to invest in renewable energy technologies including wind energy systems. REPI permits Department of Energy to make direct payments to publicly and cooperatively owned utilities at the rate of 1.5 cents per kilowatt-hour for electricity generated from wind, solar, geothermal, and biomass projects. Because wind energy projects require a 2- to 3-year lead-time for permitting and construction, it is very important that stable and predictable funding be provided.

CONCLUSION

Continued investments in wind energy R&D are delivering value for taxpayers by developing another domestic energy source that strengthens our national security, provides rural economic development, spurs new high-tech jobs, and helps protect the environment.

While the wind industry continues to grow in terms of new generation capacity installed, continued Department of Energy wind energy R&D is vital to growing this domestic power source. The current debates in Congress regarding energy policy have brought to light the important role wind and other renewable energy technologies, both utility-scale and small-scale, can play in our Nation's energy strategy.

AWEA appreciates the opportunity to provide this testimony to the Subcommittee. We would be pleased to answer any questions that may arise. Thank you.

PREPARED STATEMENT OF THE AMERICAN SOCIETY FOR MICROBIOLOGY

The American Society for Microbiology (ASM), the largest single life science organization in the world, with more than 42,000 members, appreciates the opportunity to provide written testimony on the fiscal year 2004 budget for the Department of Energy (DOE) science programs.

The ASM represents scientists working in academic, medical, governmental and industrial institutions worldwide. Microbiological research is focused on human health and the environment and is directly related to DOE programs involving microbial genomics, climate change, bioremediation and basic biological processes important to energy sciences.

The Office of Science supports unique and critical pieces of U.S. research in scientific computation, climate change, geophysics, genomics, and the life sciences. This research is conducted at both the DOE national laboratories and at approximately 250 universities nationwide through peer-reviewed, competitive research. The Office of Science is also an invaluable contributor to the scientific programs of the National Institutes of Health (NIH) and the National Science Foundation (NSF). These partnerships bridge the gap between the physical sciences, the life sciences and computational sciences, allowing science to refine and advance our efforts in deciphering genomes and their critical functions. The Office of Science is a leader in these efforts and promoting multidisciplinary research that seeks to harness the capabilities of microbes and microbial communities to help us to produce energy, clean up waste, and sequester carbon from the atmosphere. Furthermore, these cross-disciplinary programs contribute enormously to the knowledge base and training of the next generation of scientists while providing worldwide scientific cooperation in physics, chemistry, biology, environmental science, mathematics, and advanced computational sciences.

The Office of Science will play an increasingly important role in the Administration's goal of U.S. energy independence in this decade. Many DOE scientific research programs share the common goal of producing and conserving energy in environmentally responsible ways. Programs include basic research projects in microbiology, as well as, extensive development of biotechnological systems to produce alternative fuels and chemicals, to remediate environmental problems, and to reduce wastes and pollution.

The Administration's proposed budget for fiscal year 2004 requests $3.3 billion for the Office of Science, an increase of $5 million over fiscal year 2003. The ASM would like to submit the following comments and recommendations for funding levels for research in the Biological and Environmental Research (BER) and Basic Energy Sciences (BES) programs for fiscal year 2004. Federal investment in these programs today, will help to ensure fundamental research to find solutions to future environmental and energy problems while maintaining U.S. scientific leadership worldwide.

MICROBIAL GENOMICS

The Administration has requested $10 million for fiscal year 2004, which is the same level as in fiscal year 2003. In view of the tremendous potential from microbial genomic sequencing, the ASM recommends that Congress provide $15 million for fiscal year 2004. In 1994, the Office of Biological and Environmental Research developed the Microbial Genomics Program as a compliment to the Human Genome Program. This early leadership in microbial genomics has allowed the program to decipher the genomic sequences of many of the non-pathogenic microorganisms available today. This information provides clues into how we can design biotechnological processes that advance research in a number of disciplines and national priorities, such as biogeochemical cycles, global warming, and alternative energy research. Fundamental microbial research will continue to underpin DOE's research capabilities in other BER and BES programs, including: Genomes to Life; bioremediation research; and carbon sequestration. DOE has also developed, at the Joint Genome Institute (JGI), a highly efficient, centralized sequencing facility that is a unique and valuable resource for serving the Nation's non-medical microbiological researchers.

Knowing the complete DNA sequence of a microbe provides important keys to the biological capabilities of the organism and is the first step in developing strategies to more efficiently detect, counteract, use, or reengineer that microbe to address an assortment of national issues. The DOE has completed the DNA sequencing of more than 50 microbes with potential uses in energy, waste cleanup, and carbon sequestration. For instance, the JGI has completed the genomic DNA of several algae important in the ocean's photosynthesis process and in soil bacteria that assimilate carbon dioxide, both important biological processes for carbon dioxide capture from the atmosphere.

The ASM applauds DOE's leadership in recognizing this important need in science and endorses expansion of its microbial genome sequencing efforts, particularly in using DNA sequencing to learn more about the functions and roles of the 99 percent of the microbial world that cannot yet be grown in culture.

GENOMES TO LIFE PROGRAM

The ASM strongly supports the Administration's funding of the Genomes to Life (GTL) program at $59 million for fiscal year 2004. The GTL program is ushering in a new biological era—the era of systems biology, which will allow us to understand entire living organisms and their interactions with the environment. This new level of exploration (i.e., systems biology) will empower scientists to pursue completely new approaches to discovery and spur the development of new products or services from microbes and other organisms. With a deeper, genetically based understanding of living organisms, the potential to utilize and refine their functions will allow us to address many of today's challenges in carbon sequestration, energy transformation, and environmental clean up. The Genomes to Life program has just begun to demonstrate the potential application of microorganisms for energy, medicine, agriculture, environment, and national security needs. This research will potentially offer new biotechnology solutions to these challenges and those of tomorrow. Underlying the potential applications of biotechnology for clean energy, mitigating climate change, and environmental cleanup is the need for a solid understanding of the functions, behaviors and interactions of every biological part (the genes and proteins) of a microorganism. If we are to improve the productivity of forests, bioremediation agents, biomass crops and agricultural systems, it is imperative to understand how these biological machines work. This will require a staggering amount of expertise across the sciences (e.g., physical and computational), new computational capabilities, new tools, and new interdisciplinary approaches to genomics research.

In fiscal year 2004, the GTL program will increase its emphasis on DNA sequencing of microbes and microbial communities. This sequencing will serve as the core biological data needed to further understand the control and function of molecular machines and microbial communities. The ASM applauds the programs continued focus on microbial communities and notes that this represents the kind of interdisciplinary science that DOE has done successfully in the past, making use of advanced technologies, specialized facilities, teams of scientists, and computational power. The ASM also sees this program as the basis for an expanded effort to understand more broadly how genomic information can be used to understand life at the cellular level and urges Congress to fully support this exciting program.

CLIMATE CHANGE RESEARCH

The ASM is pleased to see the Administration's support of Climate Change Research continue in its fiscal year 2004 budget. The ASM endorses the President's proposed $143 million budget, an increase of $6 million over fiscal year 2003. The Society is also supportive of the proposed $19 million budget for the Ecological Processes section for fiscal year 2004, a $5 million increase over fiscal year 2003.

In fiscal year 2003, the Administration launched the Climate Change Research Initiative (CCRI), to study the potential effects of greenhouse gases and aerosol emissions on the climate and the environment. The Climate Change Research Subprogram is DOE's contribution to the cross-agency CCRI and applies DOE's expertise in genomics and computational climate modeling to determine the effects of greenhouse emissions on the global climate. The Climate Change Research subprogram supports four areas of research: Climate and Hydrology, Atmospheric Chemistry and Carbon Cycle, Ecological Processes, and Human Interactions. This research is focused on understanding the physical, chemical, and biological processes affecting the Earth's atmosphere, land, and oceans and how these processes may be changing because of greenhouse emissions.

The Ecological Processes portion of the subprogram is focused on understanding and simulating the effects of climate and atmospheric changes on the biological structure and functioning of planetary ecosystems. Research in 2004, will focus on understanding the responses of a simplified terrestrial ecosystem (e.g., higher plants, consumers of plant production, and soil microorganisms) to changes in a key environmental factor, such as, temperature. This research is critical if we are to better understand the changes occurring in our ecosystems from increasing levels of atmospheric radiation absorptive gases.

The ASM urges Congress to support this important research within the Office of Science budget. The Climate Change Research subprogram is a key component in developing more accurate climate modeling and ecosystem data, and promises to yield new technologies to address future climate changes.

BASIC ENERGY SCIENCE

The Administration's requested funding for the Office of Basic Energy Sciences (BES) is $1 billion for fiscal year 2004. This program is a principal sponsor of fundamental research for the nation in the areas of materials sciences, chemistry, geosciences, and biosciences as it relates to energy. Biosciences funds an array of microbiological and plant research focused on harvesting and converting energy from cellulose and other products of photosynthesis into renewable resources.

The ASM is supportive of DOE's continued emphasis upon biobased energy research as a key component of the Nation's energy portfolio. In 2004, biosciences will continue to focus on recent successes in its cellulose biosynthesis program, which is funding research into the synthesis of cellulose, the most abundant biomolecule, as a potential biofuel. Other microbiological research (e.g., Molecular Mechanisms of Natural Solar Energy Conversion, $12 million in fiscal year 2004) supported by the program includes fundamental research into the characterization of molecular mechanisms involved in the conversion of solar energy into biomass, biofuels, bioproducts, and other renewable energy resources. Furthermore, the ASM believes continued research into energy-rich plants and microbes be a DOE priority as genomic technologies have given this research area a tremendous new resource for advancing the Agency's bioenergy goals.

The ASM is also supportive of new activities, such as, the Metabolic Regulation of Energy Production program ($19 million for fiscal year 2004), which supports the biological advances needed to complement the chemical nanoscale program within the Office of Science.

BIOREMEDIATION

DOE's bioremediation research is contained in the Natural and Accelerated Bioremediation Program (NABIR). The Administration's proposed budget for the NABIR program is $24.1 million. The ASM supports the Administration's request for bioremediation research. However, the ASM believes that greater benefits will be achieved if the NABIR program is increased to $30 million.

In fiscal year 2004, the NABIR program will focus on a number of efforts: Biotransformation (microbiology to elucidate the mechanisms of biotransformation of metals and radionuclides), Community Dynamics and Microbial Ecology (structure and activity of subsurface microbial communities), and Biogeochemical Dynamics (the dynamic relationships among geochemical, geological, hydrological, and microbial processes). Bioremediation scientists are searching for cost-effective technologies

to improve current remediation methods to clean up DOE's contaminated sites. This research has the potential to lead to new discoveries into reliable methods of bioremediation of metals and radionuclides in soils and groundwater. The NABIR program supports the basic research that is needed to understand this technology to more reliably develop the practical applications for cost-effective cleanup of pollutants at DOE sites. The ASM strongly recommends that additional funding be allocated to balance the program elements and pollutants studied as originally envisioned when the NABIR Program was designed.

NEW TECHNOLOGIES AND UNIQUE FACILITIES

New technologies and advanced instrumentation derived from DOE's expertise in the physical sciences and engineering have become increasingly valuable to biologists. The beam lines and other advanced technologies for determining molecular structures of cell components are at the heart of current advances to understand cell function and have practical applications for new drug design. DOE's advances in high throughput, low cost DNA sequencing; protein mass spectrometry, cell imaging and computational analyses of biological molecules and processes are other unique contributions of DOE to the nation's biological research enterprise. Furthermore, DOE has unique field research facilities for environmental research important to understanding biogeochemical cycles, global change and cost-effective environmental restoration. In short, DOE's ability to conduct large-scale science projects and draw on its unique capabilities in physics, computation and engineering is critical for future biological research.

The ASM strongly supports the basic science agenda across the scientific disciplines and encourages Congress to maintain its commitment to the Department of Energy research programs to maintain U.S. leadership in science and technology.

PREPARED STATEMENT OF THE SUN GRANT INITIATIVE

THE NATIONAL NEED FOR BIOENERGY AND BIOPRODUCTS

Energy Security.—As readily accessible domestic sources of petroleum have waned, the United States has steadily increased its reliance on imported oil from other nations. The proportion of imported oil increased from about 30 percent of domestic consumption in 1970 to about 56 percent in 2000. Evidence that world oil supplies will become even more limited in the coming decades suggests that alternative sources of energy and industrial chemicals must be developed as soon as possible. Bioenergy resources can be further developed in ways that complement and augment petroleum energy resources, helping to reduce our dependence on imported oils while helping constrain the costs of energy for American industries and consumers.

Farm Security.—Farmers have been experiencing economic hardships throughout the 1990's and continue today, primarily because of excessive production of core commodity crops. The hardships have flowed throughout rural America and a devastating exodus to urban centers has resulted. Viable alternatives and diversity are needed in agriculture to bolster the Nation's independent farm families. Bioenergy and bioproducts produced on American farms represent an opportunity to both reduce dependence on imported oil while providing a significant source of income to American farmers.

New Industries.—Imported oil is an important feedstock for numerous uses other than energy and transportation fuels. Contemporary plastics, synthetic fibers, lubricants, solvents, paints and numerous other common products depend on petroleum as a feedstock. In the future, agriculture will produce biobased feedstocks for production of these products as well as many other non-food uses. Agriculture will also be integral to manufacturing pharmaceuticals, cosmetics, building materials, biocatalysts, and numerous other biobased products. The development of biobased products will complement, augment, and be integrated with the petroleum industry.

Rural Economic Development.—New biobased industries will benefit not only agricultural producers but will also stimulate economic development in the surrounding rural communities. In many cases, transportation logistics and infrastructure requirements will require that new biobased industries be physically located in rural communities—new capital investments and economic stimulation will stay in the rural community! A biobased economy will revitalize rural America.

Environmental Protection.—The use of renewable bioenergy and the production of many biobased products will have numerous benefits for the environment. The increased use of renewable bioenergy will help reduce greenhouse gases and will help U.S. communities and industries improve air quality while remaining economically

viable and competitive. Products that were once "wastes" can now become resources and ingredients in the development of new bioproducts. In turn, bioproducts can be designed to be biodegradable, further reducing the "waste stream" and reducing the demand for trash disposal land fills.

New Science and Engineering Technologies.—The latest scientific and engineering breakthroughs will be brought to bear on the challenge of moving to a bio-based economy. For example, genomics, nanobiotechology, and new computer modeling technologies will be utilized to improve our technical understanding of plant biochemistry, to develop new enzymatic processes and new materials for bioenergy production and the development of new bioproducts.

THE SUN GRANT INITIATIVE

Land Grant Universities.—Today, land grant universities serve agriculture by implementing research, extension, and educational programs to benefit agricultural producers and consumers, to assist rural families and communities, and to conserve the world's natural resources. Clearly, agriculture will play an important role in providing power, fuels, and biobased products for America. Because of the unique position land grant universities have in science, service and education, it is critical that they are proactively involved in creating the biobased economy. Over the past several years, land grant universities have been working to develop a new model for harnessing the capacities of the distributed agricultural research and education system into a national network that can work in ready partnership with the Federal agencies to help reach national bioenergy goals, which has led to the development of the Sun Grant Initiative.

The Sun Grant Mission.—The mission of the Sun Grant Initiative is to (1) enhance national energy security through development, distribution and implementation of biobased energy technologies, (2) promote diversification and the economic viability of America's agriculture through land grant based research, extension, and education programs in renewable energy and biobased products, and (3) promote opportunities for biobased economic diversification and the development of new biobased industries in rural communities.

Centers of Excellence and a National Network.—A network of five land grant universities are serving as regional Sun Grant Centers of Excellence (Figure 1). The universities include South Dakota State University, Oklahoma State University, the University of Tennessee-Knoxville, Cornell University, and Oregon State University. Federal funds will be shared equally among each of the regions. As Federal funds become available, up to 25 percent of the funds will be utilized at each center to enhance their abilities to develop model research, extension, and educational programs on agriculture-based renewable energy technologies and biobased industries located in rural communities. The balance of the funds in each region will be awarded competitively among all land grant universities in the region, drawing on the expertise of all land grant universities to address national priorities at the regional level.

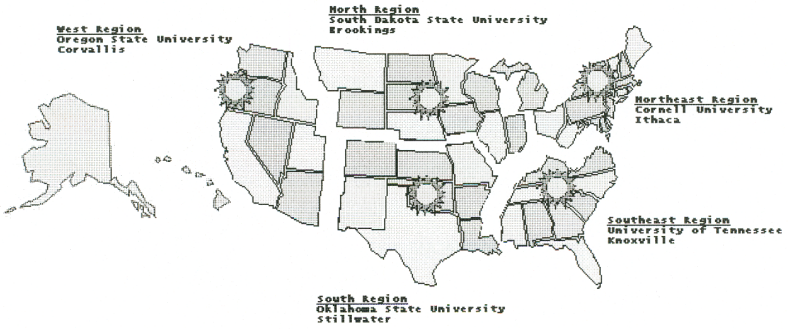

Figure 1. The five founding Sun Grant Centers and their respective regions.

These regional programs will embrace the multi-state, multi-function, multi-disciplinary integrated approach that is at the heart of the land grant method of addressing problems. The centers will interface their activities with DOE research lab-

oratories at Oak Ridge, TN (ORNL, Oak Ridge National Laboratory) and Golden, CO (NREL, National Renewable Energy Laboratory).

National Priorities

The Sun Grant Initiative programs will revitalize rural communities, enhance the Nation's energy security and improve our soil, water, and air. The primary challenges that must be faced include:

—The emergence of agriculturally based bio-industries that can coexist with and complement petroleum based industries.

—Developing biobased industries that improve the environment and protect air, water, soil, and other natural resources.

—Developing biobased industries that diversify American agriculture and complement food production.

—Developing industries that provide opportunities for the growth and prosperity of rural America.

The transition to agriculturally-based bio-industries will create economic opportunities for other sectors of the U.S. economy through creation of high-tech companies and jobs. Through the Sun Grant Initiative, the United States will continue to be a world leader in technology and innovation for future high-tech commerce and trade. We will not only produce biomass feedstocks, we will also lead the world in the technologies and the intellectual property that makes this transition to a biobased economy possible.

Regional Priorities

During the development of the Sun Grant Initiative a series of regional workshops were held with agricultural, industry and community leaders. Priority needs were identified for bioenergy and bioproducts projects within each region. The unique structure of the Sun Grant Initiative will enable the land grant universities to address national issues of concern to the Federal agencies in the context of regional and local needs and circumstances.

RELATION TO THE SUN GRANT INITIATIVE TO FEDERAL AGENCY BIOMASS PROGRAMS

The Biomass Research and Development Act of 2000 established an Interagency Board to coordinate the biomass-related programs within and among Federal departments and agencies. It is co-chaired by the Departments of Energy and Agriculture. Other member agencies include: the Department of Interior, Environmental Protection Agency, National Science Foundation, Office of Science and Technology Policy and the Office of the Federal Environmental Executive. The Act also established an Advisory Committee to advise the Secretaries of Energy and Agriculture and the Interagency Board on the future direction of biomass research and development investments. The Advisory Committee, now in its third year of activity, consists of 31 members from industry, academia, non-profit organizations, and the agricultural and forestry sectors, who are experts in their respective fields. In December of 2002, the Biomass Research and Development Technical Advisory Committee released a science "roadmap" outlining recommended priorities for the development of biomass technologies in the United States. In addition, Section 9008 of the Farm Security and Rural Development Act of 2002 provided for a reauthorization of the funding for the Biomass Research and Development Act of 2000 and provided funding to support biomass production. Building on these several legislative authorities, the Department of Energy and the Natural Resources Conservation Service of the Department of Agriculture are collaborating in the development and implementation of a Biomass Research and Development Initiative to address the priorities identified in the roadmap.

One of the remaining challenges in developing bioenergy and bioproducts technologies is that they have to be developed as a complete system to be cost effective and economically viable. Many new biobased businesses have failed because they only addressed one part of a new biobased economy. In order for farmers to increase production of a needed biofuels feedstock materials they need to be assured of a steady demand. In order for bio-industries to develop a new product, they have to be assured of a steady supply of biobased feedstock materials. The rate limiting cost in developing biobased feedstock is often the cost of shipment; it may be most cost effective to process feedstock within a 50-mile radius of the site where it was grown, which in turn requires a distributed network of bioprocesses or generators. The generators may not break even unless they are also used to co-generate heat or unless they feed energy back into local energy grids. The Sun Grant Initiative provides a means for the Department of Energy and the Department of Agriculture to access the research and education expertise of the land grant university system across the country to develop new technologies and education programs. The structure of the

Sun Grant Initiative will enable the Departments to "put all the pieces" together to create comprehensive regional scale projects that can address multiple real world production needs simultaneously. The Sun Grant Initiative complements and completes the mix of legislative and funding tools that support biomass research and development.

LEGISLATIVE DEVELOPMENTS

Legislation to authorize the Sun Grant Initiative was developed in 2002. The proposed legislative language defines the regional Centers of Excellence and the network of collaborating universities, as well as the mechanism for apportioning and distributing funds described in this testimony. The proposed legislative language will authorize funding for the Sun Grant Initiative at the level of $100 million. There is bi-partisan support for introducing and passing this language in 2003. It is our understanding that there will be communications from leading Senate offices to the Committee indicating support for moving this initiative forward and initiating start-up funding in fiscal year 2004.

FUNDING REQUEST

We request initial start-up funding of $20 million for the Sun Grant Initiative in fiscal year 2004. We suggest that funding be provided through the Energy Efficiency and Renewable Energy programs of the Department of Energy, in order to augment and expand the Department's biomass and bioenergy research and development programs. In order to facilitate coordination and collaboration with the Department of Agriculture, we are also recommending funding of $1 million be provided in fiscal year 2004 through the USDA's Cooperative State Research, Extension and Education Service.

PREPARED STATEMENT OF THE HEALTH PHYSICS SOCIETY (HPS) AND HEALTH PHYSICS PROGRAM DIRECTORS ORGANIZATION (HPPDO)

This written testimony for the record for fiscal year 2004 requests add-on appropriations to the Department of Energy's Office of Nuclear Engineering, Science and Technology (DOE–NE) to address an issue of extreme importance to the safety of our Nation's workers, members of the public, and our environment.

The safety of our Nation's workers, members of the public, and our environment is in jeopardy because of the projected near-term and long-term shortage of sufficient educated radiation safety professionals to protect them. Protection of workers, the public, and the environment is necessary as we use radiation and nuclear technologies to support our Nation's energy, health, and security needs. The national shortage of radiation safety professionals is primarily due to the fact that the Nation's academic research and education programs responsible for radiation safety and health are being terminated. Resolving this shortage in national educational infrastructure has become one of the highest priorities of the professional organizations responsible for the performance and education of radiation safety professionals, i.e., the Health Physics Society (HPS) and the Health Physics Program Directors Organization (HPPDO).

The Committee has expressed strong support for the University Reactor Fuel Assistance and Support program's efforts to provide fellowships, scholarships, and grants to students enrolled in science and engineering programs at U.S. universities, and has expressed concern about the ability of the Nation to respond to the growing demand for trained experts in nuclear science and technology. Accordingly, the Committee has appropriated funds in fiscal year 2002 (Senate Report 107–039) and fiscal year 2003 (Senate Report 107–220) to the DOE–NE for addressing this problem through the University Reactor Fuel Assistance and Support line item. Senate authorization committees have also recognized the seriousness of this problem and introduced provisions to address it through authorization of funds to university programs in bills in the 107th Congress such as S.242, S.472 and H.R.4.

Health Physics is the profession that specializes in radiation safety, an integral and necessary distinct discipline within the nuclear sciences. A recent workforce study by the Nuclear Energy Institute (NEI) has shown that the projected demand for health physicists for both the Government and Industry far surpasses the current ability of the academic programs to meet these employment demands. The fact that this serious problem can potentially impact our national cleanup program, our defense needs, and our nuclear power industry is documented in the NEI study. The NEI study does not address the impact the lack of sufficient qualified radiation safety professionals will have on our Nation's health and homeland security programs.

In a recent letter to the HPS, the DOE stated, "We share your view that an anticipated shortfall in the Nation's supply of radiation safety professionals could have a deleterious effect on the safety of our Nations' workers, the public and the quality of health care." This view has been reinforced in a recent meeting with DOE–NE Director William D. Magwood, IV, in which Director Magwood expressed support for our organizations' submittal of testimony to this Committee to appropriate a $2 million add-on in fiscal year 2004 (fiscal year 2004) to the DOE University Reactor Fuel Assistance and Support line item.

Following is the testimony prepared by the HPPDO and HPS providing details of how an appropriation of approximately $2 million in fiscal year 2004 would be used to start to stem the decline of health physics university academic programs, and to assist in the public's understanding of radiation safety as it is applied to the Nation's energy, health, and security policies.

Requested Funding Levels—$2,067,000 Fiscal Year 2004

Distribution Categories.—Academic Program Support: HP Graduate Fellowship Program, HP Undergraduate Scholarship Program, Health Physics Education & Research (HPER) Grants, HP Minority-Majority Partnerships. Health Physics Society Programs: HPS Grant to support ABET–ASAC Accreditation, HPS Grant to support Science Teacher Workshops.

HP Graduate Fellowships ($780,000 in Fiscal Year 2004).—This program will greatly expand the existing NE/HP fellowship program in DOE–NE and will replace programs lost from DOE–ES&H in 1999. The program will specifically target and recruit students into MS and Ph.D. programs at DOE-approved health physics academic programs. A total of 20 fellows will be targeted for initial 2004–2005 support. In addition to tuition and fees, students will receive a stipend set at $20,000 per year making the program competitive with the NSF Graduate Fellowship Program. All students appointed to the program will be required to participate in a practicum at a DOE site at least once during their fellowship tenure. Applicants must be either U.S. citizens or permanent resident aliens. A proposed DOE-approval list of graduate programs in health physics is given in Appendix A.

HP Undergraduate Scholarships ($64,000 in Fiscal Year 2004).—This program will target the recruitment of 20 undergraduate students into academic programs offering B.S. degrees in health physics or radiological engineering. The award will consist of an annual stipend of $3,000. The program is open to students who will become Sophomores, Juniors, or Seniors by September 2005. The award is limited for the duration of the undergraduate program, typically 36 months for Sophomores, 24 months for Juniors and 12 months for Seniors. A Scholarship appointment will not exceed 36 months. Applicants must be either U.S. citizens or permanent resident aliens. A proposed DOE-approved list of undergraduate programs is given in Appendix A.

Health Physics Education & Research (HPER) Grants ($895,000 in Fiscal Year 2004).—These competitive awards will be provided to universities to (1) support basic and applied research in health physics and radiation protection, (2) assist in the recruitment and retention of junior faculty at academic programs in health physics, and (3) contribute to the strengthening of the academic community's health physics infrastructure. A total of 7 research grants will be initially funded in 2004–2005 at $120,000 per award. Applications must be from DOE-approved graduate programs in health physics (see Appendix A).

Health Physics Minority-Majority University Partnerships ($213,000 in Fiscal Year 2004).—As an extension of the existing MMUP in Nuclear Engineering, DOE–NE would sponsor a program that encourages existing health physics academic programs to establish partnerships with Historically Black Colleges and Universities and other Minority Educational Institutions. These partnerships will include new articulation agreements between these universities, new agreements with DOE facilities for internships and research participation programs, and specialized instruction courses designed to introduce the non-traditional student to the principles of health physics. This program will encourage students from minority institutions to seek advanced degrees in health physics through the offering of undergraduate scholarships and graduate fellowships. At the proposed funding level it is expected that as many as four partnerships would be established. Each partnership would be funded at approximately $100,000 a year and would be renewable up to 3 years.

HPS Grant to Support ABET–ASAC Accreditation ($65,000 in Fiscal Year 2004)—In 2001, the Health Physics Society was granted status as the Cognizant Technical Society for the Health Physics and Radiological Sciences within the Accreditation Board for Engineering and Technology (ABET). Accreditation criteria are thus in place for health physics academic programs to be accredited through ABET's Applied Science Accreditation Commission (ASAC). A DOE–NE grant to the Health

Physics Society is proposed which would support this accreditation effort in two areas:

—*ABET–ASAC Matching Grant Program ($50,000 in Fiscal Year 2004)*.—This program would permit academic programs in health physics to apply for $5,000 matching grants from the Health Physics Society to support their costs for preparation of an accreditation self-study packet and for fees associated with ABET–ASAC accreditation site visits. It is anticipated that this matching grant program will be particularly important for smaller programs that seek to be accredited, but have limited resources for this effort. A total of 10 awards would be available in the 2004–2005 academic year.

—*ABET–ASAC Evaluator Training Program ($15,000 in fiscal year 2004)*.—This program would fund the HPS Academic Education Committee's Subcommittee on Program Accreditation. A total of ten $1,000 travel awards would be available for ABET Evaluators to serve as observers during ABET–ASAC accreditation visits to HP and other programs as part of their evaluator training. An additional $5,000 would be made available to the Subcommittee to sponsor workshops on Self-Study preparation and ABET–ASAC Evaluator training at annual meetings of the Health Physics Society.

HPS Grant to Support the Science-Teacher Workshop Committee ($50,000 in Fiscal Year 2004).—This program would provide a DOE–NE grant to the Health Physics Society to support its efforts in material development, instructor training, advertisement, and execution of Science-Teacher Workshops across the country as organized by regional chapters of the Health Physics Society. The HPS Science-Teacher Workshop Committee would administer the grant through formal proposals from individual HPS Chapters.

APPENDIX A.—GRADUATE AND UNDERGRADUATE PROGRAMS IN HEALTH PHYSICS [1]

Proposed DOE Approval List for HP Fellowships, HPER Grant Award, and HP Scholarships—To Be Replaced with ABET–ASAC List of Programs by 2006

Clemson University.—Dept. of Environmental Eng. and Science, Clemson, South Carolina. Director: Robert Fjeld, Ph.D.

Colorado State University.—Dept. of Environmental and Radiological Health Sciences, Ft. Collins, Colorado. Director: Thomas Borak, Ph.D.

Georgia Institute of Technology.—School of Mechanical Engineering, Atlanta, Georgia. Director: Nolan Hertel, Ph.D.

Idaho State University.—Department of Physics, Pocatello, Idaho. Director: Richard Brey, Ph.D.

Oregon State University.—Department of Nuclear Engineering & Radiation Health Physics, Corvallis, Oregon. Director: David Hamby, Ph.D.

Texas A&M University.—Department of Nuclear Engineering, College Station, Texas. Director: Ian Hamilton, Ph.D.

University of Florida.—Dept. of Nuclear & Radiological Engineering, Gainesville, Florida. Director: Wesley Bolch, Ph.D.

University of Massachusetts at Lowell.—Department of Physics, Lowell, Massachusetts. Director: Clayton French, Ph.D.

University of Michigan.—Department of Nuclear Engineering & Radiological Sciences, Ann Arbor, Michigan. Director: Kim Kearfott, Ph.D.

University of Nevada Las Vegas.—Department of Health Physics, Las Vegas, Nevada. Director: Mark Rudin, Ph.D.

University of Tennessee—Knoxville.—Department of Nuclear Engineering, Knoxville, Tennessee. Director: Larry Miller, Ph.D.

UNDERGRADUATE ONLY PROGRAMS IN HEALTH PHYSICS

(Proposed DOE Approval List for HP Scholarships—To Be Replaced With ABET–ASAC List of Programs by 2006)

Bloomsburg University.—Department of Physics, Bloomsburg, Pennsylvania. Director: Jack Couch, Ph.D.

Francis Marion University.—Dept. of Physics and Astronomy, Florence, South Carolina. Director: Derek Jokisch, Ph.D.

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[1] These programs are currently considered by HPPDO to be "strong" programs as they are supported by more than a single faculty member, have active research programs in radiation protection, have a long history of producing graduates, and have been active in Health Physics Society committees and academic program and accreditation planning.

PREPARED STATEMENT OF THE NAVAJO TRIBAL UTILITY AUTHORITY

In December 2000, Congress enacted Public Law 106–511, §602, the "Navajo Nation Electrification Demonstration Program" (NNEDP). The legislation was modeled on the historic Tennessee Valley Authority legislation of the 1930's. Likewise, the goal of the NNEDP is to extend electrical power to households on the Navajo Nation which currently lack it. In fiscal year 2002 and fiscal year 2003, Congress appropriated $3 million and $2.8 million, respectively. For fiscal year 2004, we are requesting the full $15 million per year authorized in the public law. On behalf of the Navajo Tribal Utility Authority (NTUA) and the Navajo Nation, our Congressman Tom Udall (D-NM) and Congressman Rick Renzi (R-AZ) have submitted the request.

Created in 1959, NTUA provides the vast Navajo Nation with the modern conveniences of electricity, natural gas, water, wastewater treatment services, and, recently, photovoltaic services. Currently, NTUA serves approximately 31,314 electric customers, about 7,017 natural gas customers, 26,580 water customers, and 11,760 wastewater customers throughout the 25,000-square-mile Navajo Nation. The Navajo Nation spreads across northwestern New Mexico, northeastern Arizona, and southeastern Utah. It is roughly the size of West Virginia.

Historically, the Navajo Nation suffers from the lack of access to electricity and other basic infrastructure needs. On March 19, 2003, during a hearing, the Department of Interior noted to the Senate Committee on Indian Affairs that a "huge portion of the Navajo people lack access to any electricity at all." We conservatively estimate that 18,000 homes throughout the Navajo Nation are still without modern utility services.

To successfully implement the NNEDP, we have developed a 5-year strategic plan. In the Construction Phase (Phase One), we focused on Navajo households located near existing power lines so that the greatest number of new customers possible could be connected to electricity with the amount of funding available. In completing Phase One, NTUA has connected 505 Navajo Nation households. NTUA did this by targeting groups of homes and homes near existing power lines. This moved us toward the ultimate goal of NNEDP to ensure that every household on the vast Navajo Nation has access to a reliable and affordable source of electricity by the year 2006. In completing Phase Two (fiscal year 2003), we will spend approximately $2 million for electrical line extensions and $1 million for photovoltaic services.

The impact that NNEDP has had on Navajo families who until now were living without electrical power is tremendous. On June 13, 2002, the home of Lee and Genevieve Horseson of Tonalea, Arizona—located in the rugged, remote country of northeastern Arizona—was the first NNEDP home to receive electricity. The moment was unforgettable for the Horseson family, NTUA, and the Navajo Nation when the lights lit up. What seemed like a distant dream had become an immediate reality for the Horseson family. Since then, many families like the Horsesons, living in different locations across the Navajo Nation, have celebrated being connected with electrical service for the first time.

In another instance, Mrytle Curley, a single mother of six living in Arizona, wrote a letter to NTUA thanking us for choosing her as one of the first beneficiaries of the NNEDP. Navajo citizens like Ms. Curley once thought that electrical service was an impossible dream because they were unable to pay for member extension construction costs. Today, each evening, Ms. Curley and her children sit down to eat dinner and complete school homework together—in adequate light! Each week, as the project unfolds, more and more Navajo families are enjoying the quality of life that other Americans take for granted.

NTUA and the Navajo Nation are committed to successfully implementing and completing the NNDEP. We envision that we will connect a significant number of Navajo homes throughout New Mexico, Arizona, and Utah when we complete the project. Moreover, the electricity service will contribute to improving the economic and social well-being of Navajo people. Again, we respectfully request the House of Representatives Appropriations Subcommittee on Energy and Water fully fund the congressionally authorized appropriations of $15 million for the Navajo Nation Electrification Demonstration Project. With the funding, we will continue to build and upgrade power lines to provide electrical service to Navajo Nation households which currently lack basic electrical service. True to our motto of Building Together for Progress, we are demonstrating that Progress has indeed reached hundreds of homes throughout our beloved Navajo Nation.

Proposed Budget Fiscal Year 2004 Navajo Nation Electrification Demonstration Program

	Amount
Member Extensions: NTUA estimates that 950–1000 new customers are candidates for power line extensions residing on the Navajo Nation and Eastern Navajo Agency for fiscal year 2004. These customers have yet to be serviced due to their inability to pay for member extension construction costs	$10,155,202
Photovoltaic: NTUA estimates that 152 new customers are candidates for PV systems for fiscal year 2004. These customers live in areas too remote to economically justify construction of an electrical distribution line extension. The average cost to for each hybrid PV unit and installation is $15,000	2,291,211
Distribution: To adequately meet current and new customer electrical load needs, NTUA estimates 34 miles of 1-phase to 3-phase line conversion will be needed for fiscal year 2004	1,624,587
Training: NTUA will administer training to staff involving installation and maintenance of hybrid PV units. NTUA will also educate new PV customers on proper usage and management of their PV units	75,000
Project Administration & Support: To undertake the NNEDP, NTUA needs additional staff: Project Manager, Project Coordinator, Inspectors, Office staff, Engineering technicians, Archeologist, and ROW agents. All will be needed to manage the increased workload impacting the organization. The scope of work for extending power distribution lines includes Project Management, Finance and Accounting, Engineering, Construction, Material Management, and Customer Service. Some of the specific items include site surveys, secondary service wiring including the pole, transformer, meters and meter loops, engineering documentation, right-of-way acquisition, archeologist, and procurement of material to build electric distribution lines	854,000
TOTAL	15,000,000