

ENERGY AND WATER DEVELOPMENT APPROPRIATIONS FOR FISCAL YEAR 2005

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 2005 Energy and Water Development Appropriations Act.]

DEPARTMENT OF DEFENSE—CIVIL

DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS

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

Mr. Chairman and members of the subcommittee, thank you for the opportunity to submit testimony in support of the Channel Deepening Project at the Port of Los Angeles, the largest container seaport in the United States. Our testimony speaks in support of an fiscal year 2005 appropriation of \$35 million for the Federal share of continued construction of the Channel Deepening Project at the Port of Los Angeles. This critical Federal navigation improvement project underpins the United States' decisive role in international trade. Consistent with the goals and priorities of the administration and Congress, the Channel Deepening Project will provide immediate and significant economic return to the Nation, fulfill the commitment to environmental stewardship, and foster positive international relations. We respectfully request the subcommittee to fully fund our fiscal year 2005 appropriation request of \$35 million.

The Corps of Engineers recently revised the cost of the Channel Deepening Project, and the Federal share, to account for credits for in-kind services provided by the Port and other project modifications. The Corps issued these credits before the Port and Corps' execution of the Project Cooperation Agreement. The modifications include adjustments to the disposal costs for dredged material, adjustments for construction contract changes, and project administration costs. The Corps' revised cost is now \$222,000,000, representing a Federal share of \$72,000,000 and a local share of \$150,000,000. Furthermore, in fiscal year 2003, we experienced a funding shortfall challenging the Port to meet construction contract earnings. As such, under authority provided by Section 11 of the Rivers and Harbors Act of 1929, the Port of Los Angeles advanced more than \$13,000,000 to the Corps of Engineers to cover the shortfall, and avoid costly construction shutdown or debt service due to interest accruals. Similarly, fiscal year 2004 funding shortfalls may also prove to be insufficient to meet construction contract earnings and could significantly slow the current construction schedule for this year. Mr. Chairman, while we are so grateful that the President's fiscal year 2005 budget includes \$23 million for the Channel Deepening Project, the previous funding shortfalls and the increased project costs compel us to request the higher funding level. As you may be aware, the Corps of Engineers reprogrammed \$23 million from the South Pacific Division last year without allocating

any portion of those dollars to the Channel Deepening project that is performing well.

Dramatic increases in Pacific Rim and Latin American trade volumes have made infrastructure development at the Port of Los Angeles more critical than ever, with more than 42 percent of containerized cargo entering the United States through the San Pedro Bay port complex. The Port of Los Angeles, alone, handled more than 7.2 million 20-foot equivalent units of containers (TEUs) in calendar year 2003 (a 20 percent increase over 2002), representing ongoing unprecedented growth for any American seaport. This burgeoning trade has resulted in the manufacture of larger state-of-the-art container ships. As such, the Port embarked upon the Channel Deepening Project—along with its Federal partner, the Army Corps of Engineers—to deepen its Federal channel from –45 feet to –53 feet. Currently, more than 50 of these state-of-the-art container ships are on order to serve the United States West Coast container fleet. The first of these deeper-draft ships is scheduled to call at the Port of Los Angeles in August of this year, carrying 8,000 TEUs and drafting at –50 feet.

As we have testified before, cargo throughput for the San Pedro Bay—and the Port of Los Angeles in particular—has a tremendous impact on the United States economy. We at the Port of Los Angeles cannot over emphasize this fact. The ability of the Port to meet the spiraling demands of this phenomenal growth in international trade is dependent upon the speedy construction of sufficiently deep navigation channels to accommodate the new container ships. These new ships provide greater efficiencies in cargo transportation, carrying more than 8,000 TEUs and one-third more cargo and making available to the American consumers more product inventory at lower prices on imported goods. In addition, exports from the United States become more competitive in foreign markets. However, for American seaports to keep up, they must, immediately, make the necessary infrastructure improvements that will enable them to participate in this rapidly changing global trading arena.

Mr. Chairman, these state-of-the-art container ships represent the new competitive requirements for international container shipping efficiencies in the 21st Century, as evidenced by the increased volume of international commerce and the new deeper-draft container ships now on order for service at ports across the United States within the next few years. It is imperative that Congress appropriates the requested funding that will enable the Channel Deepening Project to continue on schedule through the project's anticipated completion in 2006 to meet these new efficiencies.

The Channel Deepening Project is clearly a commercial navigation project of national economic significance and one that will yield exponential economic and environmental returns to the United States well into the future. The national economic benefits are evidenced by the creation of more than 1 million permanent well-paying jobs across the United States; more than \$1 billion in wages and salaries, as well as local, State and Federal sales and income tax revenues deposited into the Federal treasury. As an aside, the 7.2 million TEUs handled by the Port of Los Angeles in 2003 had a commercial value of more than \$300 billion in container cargo, with significant tax revenues accruing to the Federal Government. Similarly, according to the U.S. Customs Service, users of the Port pay approximately \$12 million a day in Customs duties, with the Los Angeles Customs District leading the Nation in total duties collected for maritime activities. As you can see, the return on the Federal investment at the Port of Los Angeles 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 international trade network well into the 21st Century. The Channel Deepening Project marks the second phase of the 2020 Infrastructure Development Plan that begun with the Pier 400 Deep-Draft Navigation and Landfill Project. The Port of Los Angeles is moving forward with the 2020 Plan designed to meet the extraordinary infrastructure demands placed on it in the face of the continued explosion in international trade. Mr. Chairman, the Port of Los Angeles respectfully urges your subcommittee to include an earmark of \$35 million for fiscal year 2005 to support the U.S. Army Corps of Engineers' continued construction of the Channel Deepening navigation project on behalf of the Port of Los Angeles.

Thank you, Mr. Chairman, for the opportunity to submit this testimony in support of continued Congressional support of the Channel Deepening Project at the Port of Los Angeles. The Port has long valued the support of your subcommittee and its appreciation of the port industry's importance to 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 strength.

PREPARED STATEMENT OF THE CITY OF STILLWATER

Chairman Domenici and members of the Energy and Water Development Subcommittee, I thank you for the opportunity to submit this testimony requesting the \$1.8 million needed to construct Stage 3 of the Stillwater, Minnesota flood control project. In 2001, the City experienced its seventeenth flood since 1941, immediately after the Corps completed construction work on Lock and Dam No. 3 20 miles South of the convergence of the Mississippi River and the St. Croix River.

The first two stages of the project have been completed, and Congress appropriated \$2.3 million in the fiscal year 2002 Appropriations Bill to begin construction the critical Stage 3 of the project. The \$1.5 million in Federal funds requested this year, plus State appropriated, and local funds should be sufficient to complete the \$13.2 million project.

The project is divided into three stages. Stage 1 included the repair and reconstruction of the existing retaining wall which extends 1,000 feet from Nelson Street on the South to the gazebo on the North end of the levee wall system. Stage 2 consists of the extension of the levee wall about 900 feet from the gazebo North around Mulberry Point.

The completion of Stage 2 was delayed by floods of 1997, costing the City and the Federal Government nearly a half million dollars. After the waters subsided, it was discovered that the soil beneath the planned levee extension was very unstable, requiring a revision of plans, and the addition of another stage in the construction process.

The flood waters of the St. Croix River did not recede until August of 1997. The construction area remained under water preventing construction work to proceed as scheduled. Lowell Park, which extends the full length of the levee wall system, several structures, and the emergency roadway which is used to provide emergency medical assistance for those using the recreational St. Croix River, and as a water source for local fire departments, were all either under water or inaccessible.

Phase I, the repair and reconstruction of the original levee wall, was completed in the Summer of 1998. Work on Stage 1 was completed in late Summer of 1997, and additional soil borings were taken for Stage 2. The soil was found to be very unstable, and unable to support the levee system designed for Stage 2 of the project. The construction of Stage 2 required remedial action, and was been designated as Stage 2S. A contract was awarded for Phase 2S in November, 1998, and was completed in 1999. Phase 2 was begun in the late Fall of 1999, and the major construction work was completed at the end of the year 2000. Only some landscaping, and finishing work on the levee wall system remains to be done. The Design Memorandum schedule calls for the construction of Stage 3 in fiscal year 2002, and to be completed in fiscal year 2003, according to the Corps schedule.

Stage 3 expands the flood protection system by constructing a 3 foot flood wall, and driving sheet piling below the surface to reduce seepage and to provide a base for the wall. The flood wall will be constructed about 125 feet inland from the riverbank. Stages 1 and 2 were critical to the protection of the fragile waterfront, and also, to prevent minor flooding on the North end of the riverfront. Stage 3 is the component that provides the flood protection for the City. The rising elevation of the terrain, the flood wall, and minimal emergency measures are designed to provide the City with up to 100 year flood protection.

The Mayor, City Council Members, and Engineering staff all understand that Stage 3 of the flood control project is essential for the protection of life and property of the citizens, that the Stage 3 flood wall is a critical phase of the project, and that the project must be completed at the earliest possible date. The Corps acknowledged the necessity for all three stages of the project when the Design Memorandum included plans for all three stages.

The U.S. Congress directed the Secretary of the Army acting through the Chief of Engineers to proceed with the design and construction to complete the Stillwater Levee and Flood Control Project under Section 124 of the Omnibus Appropriations Act for fiscal year 2005. The City and the State of Minnesota have allocated matching funds for this work, and it is in an escrow account for that purpose. The Corps of Engineers have said the monies appropriated to begin this work on Stage 3 have been redirected, and Federal funds are not available.

This fact is born out by the support of the Minnesota Department of Natural Resources, the Governor of Minnesota, and the State Legislature. The Minnesota Department of Natural Resources made funds available based on this premise. The

State has appropriated half of the Non-Federal matching funds needed to complete Stage 3 of the project, as well as for Stages 1 and 2. The City has provided the remainder of the required matching funds, consequently, only the Federal share is missing to complete the project.

STILLWATER—A NATIONAL HISTORIC SITE

The City of Stillwater is recognized for the 66 historic sites on the National Register of the U.S. Department of Interior, as well as other historic structures. Many of these sites are located in the flood plain of the St. Croix River. Designated the "Birthplace of Minnesota," the City of Stillwater was founded in 1843.

When Wisconsin became a State in 1848, a portion of land West of the St. Croix and Mississippi Rivers, including much of what is now the Twin Cities of Minneapolis and St. Paul, was excluded. The prominent citizens of the excluded area convened in Stillwater on August 26, 1848, passed a resolution to be presented to Congress asking that a "new territory be formed," and that the territory be named "Minnesota." Henry Sibley carried the petition to Washington, DC, and in March, 1849, Minnesota Territory was established. Stillwater then became the only city in the Nation to become the county seat of two different territories, St. Croix County in Wisconsin, and Washington County, Minnesota. The Stillwater Convention firmly established Stillwater as the "Birthplace of Minnesota."

Stillwater grew and prospered as the Lumber Capitol of the Midwest. Billions of feet of timber was cut, and floated down the St. Croix to the nine sawmills that were located on the riverbank of the St. Croix at Stillwater between 1848 and 1914. More logs were carried through the boom site North of Stillwater than any other place in the United States. Three billion feet of lumber was produced by the nine lumber mills in the 1880's alone. All nine lumber mills were located on the riverfront. The lumber from the Stillwater mills were the primary source of wood-constructed buildings throughout the Midwest.

Much of the lumber was carried down the St. Croix to the Mississippi River, and on to St. Louis, the "jumping off" point for the Westward movement. Sawdust and wood debris from these mills helped created the fragile riverbank that the levee wall system protects today.

Later in the 19th Century, five railroads carried lumber from Stillwater Westward to Nebraska, North and South Dakota, and points West, as the Nation expanded beyond the Mississippi River into the plains States. Many of the Midwest's oldest buildings still carry the mark of the Stillwater mills.

As a result of Stillwater's place in the history of the Midwest, the lumber industry, the unique homes built by Minnesota's first millionaires, and the birthplace of both Minnesota Territory and the State of Minnesota, 66 sites are included on the National Register of Historic Places. All of the downtown area, which is located in the 100-year flood plain, is included in this recognition.

THE IMPACT OF LOCK AND DAM NO. 3 ON FLOODS—STILLWATER

The Lock and Dam No. 3 was constructed in 1937-38 on the Mississippi River at Red Wing, Minnesota. The Lock and Dam construction raised the level of the St. Croix at Stillwater by 8 to 10 feet. It has made the City of Stillwater vulnerable during periods of high water and flooding of the St. Croix since that time. Records prove that the lock and dam construction, raising the water levels of both the Mississippi and the St. Croix River, has markedly increased the incidence of flooding at Stillwater. The culpability of the Corps is clearly evident.

The Mississippi and the St. Croix Rivers merge about 14 miles South of Stillwater. When constructing the Lock and Dam at Red Wing in 1938, the Federal officials recognized that detaining the flow of the Mississippi would back up the water in the St. Croix at Stillwater. A 1,000 foot levee wall system was constructed at Stillwater by the WPA under the supervision of the Corps to protect the fragile waterfront.

From 1850 to 1938, the 88 years prior to the construction of Lock and Dam No. 3, only four floods were reported by historians. None were the result of Spring snow melts. The 1852 flood was the result of a cloudburst, the destruction of a dam built on McKusick Lake above the City, and was not the result of the flooding of the St. Croix River. The floods of June 14, 1885, and May 9, 1894, as well as the 1852 flood, were all the result of cloudbursts in or above Stillwater. These floods resulted in both loss of life and significant property losses in the City.

Since the completion of the Lock and Dam 60 years ago, the St. Croix has flooded on 17 occasions, and only four times in the 90 years preceding the construction of the Lock and Dam. None of the four were the result of high water on the St. Croix River. Four floods were recorded in the 1940's, immediately after the completion of

the lock and dam at Red Wing. The 1952, 1965, and 1969 floods were record-breaking floods, the result of a heavy snow fall, and early Springs rainfall, coupled with warm weather. Record flooding was avoided in 1997, by the early planning of City officials, the construction of a huge emergency levee requiring thousands of truck loads of clay and sand, the work of hundreds of volunteers, and luck in the avoidance of a severe rainstorm in or around the flood event.

The 2001 flood was second worst flood in the 160 year history of the City. It was only topped only by the flood of 1965. The careful planning and preparation by the City, hundreds of volunteer workers included high school students and younger, local citizens from Minnesota and Wisconsin, and dozens of inmates from the nearby State prison were given credit for preventing a major catastrophe for the City. The water pump rental, thousands of yards of sand and fill, and a "round the clock" line up of trucks, cost the Federal, State, and local governments nearly \$1.3 million.

The planning and preparation of City officials, and adequate lead time have allowed the construction of levees high enough to avoid massive flooding in the historic section of the City during most of the floods, and to prevent further loss of life. However, a 4-5 inch rainfall during high water levels would be devastating to the City. Such rainfalls are not infrequent in the St. Croix Valley, and can not be anticipated. A major concern is the safety of the volunteers. Working around heavy equipment and massive trucks, day and night, and on top of 20 foot emergency levees over swirling flood waters, it is only a matter time until we have serious injuries or loss of life.

A wet Fall that saturates the soil, heavy snows during the Winter, extended warm spells in the Spring, coupled with persistent Spring rains, and cloudbursts as experienced in the past, will all come together in the same year at some point in time. At that point, the City's emergency responses to flood control will not be sufficient to cope with the flood waters.

History bears out the City's contention that the raising of the river levels by ten feet in 1938, when Lock and Dam No. 3 was constructed, greatly increases the flooding potential faced by the City during the past 60 years. On this basis alone, the Federal Government must share in the responsibility for providing a remedy. The construction of the Stage 3 flood wall at Stillwater will provide this safety.

ENVIRONMENT THREATENED DURING FLOOD EVENTS

The St. Croix River was designated as one of the first Wild and Scenic Rivers by Congress and is protected under both Federal and State laws, as well as by local ordinances. The St. Croix River is carefully monitored by the Federal Government, an Interstate Commission, and the DNR's by both the States of Wisconsin and Minnesota.

The City's concern is the trunk sanitary sewer line and pumping stations for the City of Stillwater. The sewer line runs adjacent to the riverfront and is frequently under water during major flood events. More than 2 million gallons of raw sewage is handled daily by the sewer line and pumping stations that follow the riverfront. Engineers have advised the City that extended flooding of the flood plain could result in the rupturing of the trunk line or the surcharging of the pumping stations.

Either of these event would result in the direct flow of raw sewage into the St. Croix River. It would be impossible to repair the system during the high water of a flood event. During the 1997 floods, one pumping station and a portion of the trunk sewer line remained under water for 95 days, and required careful monitoring by the City workers.

The protection of the river is not only the dominant theme of the State and Federal governments, but also by the counties and municipalities that line the riverbanks of the St. Croix. However, the greatest protectors of the river are the citizens themselves who take advantage of the crystal blue waters of the St. Croix for fishing, boating, and other recreational and scenic purposes.

The topography of the City of Stillwater requires the location of the trunk sanitary sewer line and pumping stations at the base of the City's hub, adjacent to the riverfront. The City is built on two hills that slope toward the river, abruptly interrupted by sandstone bluffs extending 50-75 feet high above the river level. The sanitary sewer system serving the 16,000 Stillwater residents flows into the trunk sewer line that runs parallel to the riverfront. It can not be moved. The 2 million gallons of raw sewage handled by the system each day, is gathered in the trunk sewer line and pumped Southward to the water treatment plant.

According to engineering studies, the trunk line and the pumping stations are both susceptible to rupture or surcharging during periods of flooding. Little could be done to stop the flow of raw sewage into the St. Croix until the water receded. During recent floods, it is not unusual for high water levels to persist for as much

as 2–5 months. Such an event could release 120 million gallons of raw sewage into one of America's most pristine rivers over that period of time. If for no other reason than the protection of the river, the City believes the Stage 3 flood wall must be constructed with no delay.

LEGISLATIVE BACKGROUND

The Stillwater Flood Control and Retaining Wall project first was authorized in section 363 of the Water Resources Development Act (WRDA) of 1992. An allocation of \$2.4 million was made in the Energy and Water Development Appropriations Act of 1994.

A Committee Report described the project in three parts—to repair, extend, and expand the levee wall system on the St. Croix River at Stillwater, Minnesota:

- “To repair” (Stage 1) the original existing levee wall system constructed in 1936;
- “To extend” (Stage 2) the original wall by approximately 900 feet to prevent the annual flooding that occurs at that location; and
- “To expand” (Stage 3) the system by constructing the flood wall about 125 feet inland from the levee wall system to protect the downtown and residential section in the flood plain.

In 1995, the Design Memorandum confirmed the cost estimate for the project was much too low, and the project was reauthorized for \$11.6 million by Congress in the 1996 WRDA legislation. In 2001, the Corps estimated the Federal cost at \$9.86 million, the non-Federal cost at \$3.29 million, and the total cost of the project to be \$13.15 million. Congress appropriated \$2 million in fiscal year 2002 for the construction of the Stage 3 flood wall. The Corps chose not to use these funds for that purpose, and were redirected to other projects. Congress then directed the Corps to design and construct the Stage 3 flood wall in Section 124 of the Omnibus Appropriations Act for fiscal year 2005. While the Corps has now met with the City, and appears willing to move ahead as Congress as instructed, we are awaiting Corps action to prepare a Project Cooperation Agreement for all to sign.

Since the reauthorization of the project 5 years ago, and the completion of the feasibility study, both Stage 1 and 2 have been completed. Only the completion of Stage 3 will provide the City with the flood protection that is critically needed. The reconstruction of the existing levee wall system, the extension of the levee wall, and the construction of the flood wall are all critical to the safety of the citizens, the protection of property, and the preservation of historic sites that contributed to the growth and expansion of the Midwest in the last half of the 19th Century.

SUMMARY

The Mayor and Council for the City of Stillwater, Washington County Officials, the Governor and Minnesota State Legislature, and bipartisan support of Minnesota Representatives and Senators in Congress, all recognize the significant importance of completing this project by constructing the Stage 3 flood wall on the St. Croix River at Stillwater. They are committed to the completion of the Flood Wall Project at Stillwater. It is critical to the protection of property, the preservation of our history, the respect of historic Indian sites, and the safety of our citizens and their homes and business.

We respectfully urge the Energy and Water Development Subcommittee for Appropriations to allocate the \$1.8 million needed to begin construction of the Stage 3 flood wall in the fiscal year 2005 Appropriations Bill. If you have questions or would like additional information regarding this project, please call on us.

PREPARED STATEMENT OF THE CITY OF GRANITE FALLS, MINNESOTA

Chairman Domenici and members of the Appropriations Subcommittee, I appreciate the opportunity to submit this testimony on behalf of the City Council and the citizens of Granite Falls, Minnesota. We are requesting \$1.2 million in Federal funds for the development of the Detailed Design Report (DDR) plans and specifications, and critical preventative measures to protect the city from future flooding of the Minnesota River.

This request is based on the “Supplement to the Locally Preferred Plan for Flood Damage Reduction, January, 2002” prepared on behalf of FEMA, the City, and information from the U.S. Army Corps of Engineers, Section 205 study not yet completed. This project was authorized in the Transportation and Infrastructure Committee bill, the Water Resources Development Act of 2003. The project has now been authorized for \$8 million in Federal funds in H. Res. 2557, Sec. 3061 as a Section

205 project, in accordance with the Water Resources Development Act of 1986 (100 Stat. 4184) as needed.

The problems confronting the City require a carefully planned project. The geological features of the terrain discourages the construction of diversion channels due to the granite subsurface of the soil. Homes and businesses are being relocated using FEMA, State and local resources. The existing uncertified and inadequate levee system will be improved to provide adequate protection for the communities, and the Municipal Power Plant adjacent to the Minnesota River will require relocation.

THE CITY OF GRANITE FALLS

The City of Granite Falls is a community of slightly more than 3,000 citizens, is located in West Central Minnesota about 122 miles west of St. Paul. The Minnesota River runs through the northern and eastern portions of the City, and is directly adjacent to the downtown area. The majority of the City's residential and commercial properties are located on the west bank of the Minnesota River in Yellow Medicine County. Low-lying residential areas on the north end of the City, structures in the commercial business district along the river, and residences located next to the secondary river channels in the southwest part of the City are especially vulnerable to flooding.

RECENT DISASTERS

While the river represents a valuable resource to the community, it has taken a severe toll on residents and businesses during Spring floods. The 1997 floods which devastated much of Western Minnesota and North Dakota did not spare Granite Falls. The Flood drove many from their homes and their downtown businesses, and resulted in millions of dollars in damages. Virtually every downtown business was flooded. More than \$850,000 was spent by the city, and another \$175,000 by the Corps of Engineers to fight the flood.

Hundreds of volunteers from Granite Falls area and the State prevented further devastation as the Minnesota River has a peak discharge of 53,000 cubic feet per second. That's more than 3 million cubic feet of flood water per minute. The rushing water was within inches of the top of the temporary dike as volunteers continued to stack sand bags. If the water had topped the dike, literally dozens of the workers' lives would have been severely endangered. Total costs and damages exceeded \$5 million.

In July of 2000, the city was hit by an F-4 tornado. An F-5 tornado is the top of the scale. One person was killed, 14 badly injured, and 325 homes were either totally destroyed or severely damaged. The tornado caused more than \$26 million in damages in the community.

The following year, 2001, the City was again hit by another record flood event. Though not as severe as the 1997 flooding, damage was reduced significantly by careful City planning and preparation with Federal and State governmental units. Even so, the costs to fight the flood exceeded half a million dollars for the City and the Corps of Engineers, and much of the downtown commercial area was evacuated.

Other significant floods have occurred in 1951, 1952, 1965, 1969, and 1994. While floods have cost the community millions of dollars in extensive property damage and economic hardship, the primary concern is the significant risk to the hundreds of volunteers whose work is required building levees during flood events to protect the homes and business.

Preparation for fighting disaster costs have reached nearly \$4 million in the past 4 years. That amounts to thousands of dollars to every property owner in the City. Other significant flood events have occurred in 1951, 1962, 1965, 1969, and 1994.

While floods have cost the community millions of dollars in extensive property damage and economic hardship, the primary concern is the significant risk to the hundreds of volunteers whose work is required building levees during flood events to protect the homes and businesses. Total flood damages and costs are more than \$30 million from 1997 through 2001.

Granite Falls has received financial support from FEMA, the Corps of Engineers, and the State of Minnesota to clean up after the disasters and to repair damages. Funds have been received to repair streets, housing rehabilitation and construction, economic development, and special services. All the help has been directed toward restoration after the floods and tornado event, but no funds have been available to prevent future flooding.

CORPS OF ENGINEERS SECTION 205 STUDY

Following the 1997 flood, the Corps of Engineers initiated a Section 205 study in May, 1998, to evaluate the extent of the flooding problem in Granite Falls, and to explore possible remedies. The study is essentially complete, but has not been released to date. The major problems of cost and funding level addressed in the 205 study have been resolved in the project authorization in H. Res. 2557.

STUDIES CONDUCTED

The City, through a FEMA project grant under the direction of the Minnesota Department of Natural Resources MN/DNR, conducted a study of the flood problems confronting Granite Falls. The overall objective of the study was to evaluate hazards for the Granite Falls area, and to develop preliminary evaluation and prioritization for those hazards.

The Report states, "Because of the tremendous impacts of flooding on the Granite Falls community, and the relative frequency of flooding events, the report begins with an all hazard evaluation, but then focuses on flood hazards, and presents mitigation options and preliminary costs for implementing those options."

The Report evaluated each area of the community, determined the risk factors, and suggested options available to protect the area against flooding. In the conclusion of the Report, it was recommended the most economical solution to provide the necessary protection was buy out many of the properties and move them to a location outside the flood plain. This work is currently in progress.

The elevation of other areas would have to be raised, pump stations would need to be installed, some levees constructed, and the sanitary lift station and the water plant would need to be relocated. It is estimated the cost of this work would be approximately \$12 million.

The Supplement to the Locally Preferred Plan (SLPP) provides a level of flood protection for flood events up to the 500-year event. The 1998 Corps of Engineers 205 study indicates the 500-year level of protection is about the same as the 100-year flood plus 3 feet of freeboard. This level of protection is necessary as the result of a reevaluation by FEMA which indicated that the current level of protection for Granite Falls was violated in both the 1997 and the 2001 flood events.

The SLPP identifies seven areas severely impacted by flooding, suggests the remedial action needed, and the cost of such work. Relocation costs are not included in this report. The City believes that with the financial assistance received from FEMA to relocate many of the structures in low lying areas, the remaining project needs are appropriately addressed under flood protection programs administered by the Corps of Engineers.

The Locally Preferred Plan includes the removal of about 41 structures in the lower areas of the City, including several in the commercial district. FEMA has provided the funds for 25 structure moves, leaving only 15 additional structures to be moved as a part of the project.

APPROPRIATION REQUEST

The city requests \$1.2 million from the committee for the purpose of the development of the Detailed Design Report, preparation of plans and specifications, and the placement of pumps stations at two of three critical locations in the city. These pump stations will provide some immediate flood relief during an emergency, but are also needed permanently as a part of the total project.

Thank you for your consideration of this request. And may I also take this opportunity to express our appreciation to the St. Paul District Office of the Army Corps of Engineers for their help and assistance during the crisis we have experienced in recent years. We will be happy to respond to any questions you may have regarding the needs of the city, and the flood protection project.

PREPARED STATEMENT OF THE CITY OF CROOKSTON, MINNESOTA

Chairman and members of the Appropriations Subcommittee, I appreciate the opportunity to submit this testimony on behalf of the City Council and the citizens of Crookston, Minnesota. We are requesting \$1.2 million in Federal funds for the development of the supplement to the environmental assessment study, to prepare the design, and to initiate construction work in the fiscal year 2004 Appropriations Bill. The purpose of this request is to provide flood protection for the Chase/Loring and Sampson neighborhoods in the City. This request is based on the Feasibility Report Supplement: Local Flood Control completed on April 30, 2002.

First, we would like to thank you and the members of this committee for the \$2.202 million appropriation you provided for the Crookston Flood Control Project in the fiscal year 2003 Appropriation Conference Report. These funds made it possible to complete the work on Stage 2 of the project.

Stages 1 and 2 of the project has provided 100-year flood protection for Thorndale, Woods, and Downtown/Riverside neighborhoods. This is a tremendous step forward, and we are very appreciative of the support given us by this committee and the Army Corps of Engineers. However, the project still leaves two of our most vulnerable neighborhoods, Sampson and Chase/Loring, fully susceptible to future flooding when the Red Lake River again leaves its banks.

The City of Crookston is located in the Red River Valley of Western Minnesota, in Polk County, 25 miles East of Grand Forks, North Dakota. The Red Lake River winds its way through the City from its source at the Upper and Lower Red Lakes, and flows into the Red River at Grand Forks. The early settlers in Crookston built their homes in the crooks of the river to be close to the water supply vital to their existence. As a result, five neighborhoods were established that became the City of Crookston. The population of the City has remained constant over the past decade at about 8,200 citizens.

The community was settled in 1872, when the first railroad route was announced crossing the Red Lake River where Crookston now stands, and later, extending to Canada. The economy of Crookston is based primarily on agriculture. It is the home of the University of Minnesota Crookston, a technology oriented school with a full academic program enrolling approximately 2,500 students.

The City of Crookston has two recent major flood events—1997 and again in 2001. The flood of record was at a stage of 27.3 feet in 1969, and the 1997 flood exceeded it with a stage of 28.6. The 2001 flood on the Red Lake River at Crookston was 26.38 feet or 11 feet above flood stage. For both flood events, the city was able with the help of the Corps of Engineers and the State of Minnesota to take extreme emergency actions to prevent catastrophic losses throughout the community.

The 1997 flood came within inches of inundating the community with huge potential for loss of life. This flood further emphasized the need for a long-term flood damage reduction project to protect the citizens and the community.

These floods also demonstrated that flood damage reduction must be at a 100-year level, consistent with the authorized project, and needs to be looked at from a total community perspective. “Piecemealing” a project, by protecting only certain areas, will not eliminate the need for significant federally subsidized flood emergency reimbursements in the future. Not including State and local expenditures, use of resources, and purchase of materials, the Federal costs alone incurred in 1997, totaled nearly \$1.5 million. State and local costs were estimated at a similar amount, whereby, the 1997 flood costs totaled nearly \$3 million.

Both floods contributed to the progressive deterioration of the emergency levee system. The reliability of this system is now much worse than what was reported in the pre-flood 1997 feasibility report. The recent flood and the documented and visual impact of the 1997 flood at Grand Forks, ND, and East Grand Forks, MN demonstrated that failure of the emergency system would be catastrophic. Not only would many structures incur irreparable damage, the social and economic impact from the loss of property value/tax base and cohesion would devastate the community, potentially threatening the long-term viability and survival of Crookston.

Due to recent flood events, the views of the City and its residents, the emphasis of the State of Minnesota Department of Natural Resources through the flood mitigation program, an efforts of the Minnesota Flood Relief Task Force, there is a renewed commitment to provide long-term flood damage reduction for the three remaining neighborhoods.

The reason that these areas were not included in the 1997 feasibility study was because these areas were incorrectly considered independent, and concern that the overall benefits may not cover the costs to provide protection. The primary reason was a low cost-to-benefit ratio was real estate costs. There were too many structures that needed to be relocated or purchased.

Reassessing earlier alternative flood damage reduction plans, there are further justifications for protecting a larger portion of Crookston, and ways to reduce costs, while continuing to maintain the necessary degree of flood damage reduction. Likewise, the benefits in some of these areas increased, based on new benefit categories identified in the Grand Forks, ND, and East Grand Forks, MN December 1997 feasibility study. The State of Minnesota has already committed to full protection for all of the six neighborhoods in the City of Crookston.

The cost/benefit ratio for the three stages of the project is 1.03. Evaluation by the Corps of Engineers determined a cost benefit ratio for the Chase/Loring and Sampson authorized in the House WRDA at 1.25. Continuing assessment of the project

plans will increase the project benefits even further. The City believes that the project should not be assessed incrementally, but as a total project as were other communities severely affected by the 1997 and 2001 floods in the Red River Valley.

All of the property owners in Crookston have assessed themselves flood protection fees for the past 11 years to provide the local funds needed to make their families safe during flood events. Without providing the protection needed for the Sampson and Chase/Loring Neighborhoods, the work is only half done. Since all of the citizens have been paying these assessments, it is not right that the Crookston Flood Control Project would protect only half the community.

CONDITIONS CHANGE SINCE 1997

Since the completion of the feasibility report in early 1997, events have greatly impacted flood damage reduction for the city. The floods of 1997 and 2001 have been a wake up call regarding the vulnerability of the City and its residents. There is no way that the 1997 feasibility study could have predicted these events. They demonstrated the extent of the deterioration of the existing emergency system, and new thinking on how to more cost effectively reduce flood damages in unprotected areas. The replacement of the city dam is now underway.

The revised engineering assessment of the trunk sanitary sewer system located in the Sampson addition, and the electrical distribution substation located in the Chase/Loring addition. Although, not a change, the revised engineering assessment of the sanitary sewer system found conditions that were slightly different from the analysis in the 1997 feasibility report. Several key essential features of the sanitary sewer system for the entire community are located in the Sampson neighborhood. Losses to these features would certainly cause the system to fail, including the system located in areas protected by the Federal project.

Similarly, the electrical distribution substation located in the Chase/Loring neighborhood services those areas protected by Stages 1 and 2 of the project. The loss of the substation would at least affect most of the neighborhoods, including those protected by the original authorized project. It would at least temporarily result in a loss of power, and the loss of critical flood damage reduction measures (i.e. pump stations) of the permanent project and to the sanitary sewer system.

FLOODING EVENTS AND THEIR CAUSES

Floods occurring over the past 40 years have created significant damage to homes and businesses, and have resulted in the loss of lives as well. They include the flood events of 1965, 1966, 1967, 1969, 1978, 1979, 1996, and 1997. Floods have been documented at Crookston as early as 1887. The 1950 flood, though not the maximum flood of record, created the most damage to the City and resulted in the deaths of two citizens from the community.

Between 1950 and 1965, clay levees were constructed through local efforts in an attempt to ameliorate the damages from the flooding of the Red Lake River. The floods of 1965, however, demonstrated these efforts were not adequate to hold back the torrents of water during significant flood events. While certain areas of the City received some flood protection, severe damages occurred in the South Main Street area. This section of the City has since been totally cleared.

The 1969 flood established new high water marks, and again, it was necessary to carry out extreme emergency measures. These efforts were successful in protecting the community from severe damages. Recognizing the need for more protection, another locally financed project was initiated, extending, enlarging, and raising the height of the levee wall system.

The flood of 1997, was the "granddaddy" of all floods. It established the highest water mark in recorded history when the Red Lake River crested at 28.6 feet above flood stage, the equivalent of a three-story building. It is described as a 500-year flood event.

Only the careful planning and preparation by City officials in cooperation with the Corps of Engineers, the State of Minnesota, FEMA, the National Guard, and many private citizens, were damages reduced, and fortunately, no lives were lost. Prior to the crest of the flood, the City of Crookston completed the work of adding two feet of clay and sandbags to the entire levee system throughout the town. The Corps of Engineers constructed clay dikes as a second line of defense, sacrificing a few homes for the good of many others. As a precautionary measure, 400 residents evacuated from their homes during the height of the flood. These efforts spared Crookston from the devastation experienced by neighboring towns, allowing the City to provide for 8,000 persons evacuated from their homes in nearby communities. But this disaster and the potential devastation that such floods can bring, emphasized

the critical importance of replacing the temporary earthen and clay dikes with a well-planned, permanent flood control system.

There are several causative factors that have created flood conditions for the Red River Valley and the City of Crookston. The Red River of the North did not carve out the valley, it merely meanders back and forth through the lowest parts of the floor of the ancient Glacial Lake Agassiz.

With no definitive flood plain to channel flood torrents, the slow-moving flood waters quickly overrun the shallow river banks and spread out over the flat floor of the former glacial lake bed. The small river's gradient is on one-half foot per mile, as opposed to areas in Southwestern Minnesota where in one instance, the gradient establishes a 19 foot drop in one mile. Both extremes have created problems.

The Red Lake River flows into Crookston from the Northeast, winds its way through the City, and flows out of the City, turning in a Northwesterly direction toward its confluence with the Red River at Grand Forks, North Dakota. The merged rivers then flow due North into Winnipeg, Manitoba, Canada. As the snow melts in the Southern portion of the valley, ice often remains in the channel to the North. Ice and other debris flowing North pile up against the river ice creating ice dams. These barriers back up the water and increase the flood crest upstream.

The extremely level terrain also creates a phenomenon during the Spring thaw which is called "overland flooding." As the snow melts, the huge volume of water can overwhelm the network of shallow ditches and creeks. Unable to enter the choked stream channels, the water travels overland until it meets small terrain barriers such as railroad beds and road grades, creating huge bodies of water.

In addition to the topography of the area, a combination of factors such as agricultural drainage, the loss of wetlands, the Federal governments work in the Red River Basin, and the construction of the county ditch systems, all these factors have contributed to the vulnerability of the area.

KEY POINTS OF PROJECT DEVELOPMENT

- 1992—Feasibility Cost Share Agreement signed.
- 1997—Feasibility Report and Environmental Assessment completed.
- 1997—National Economic Development optimization analysis waived to provide the entire project with 100-year flood protection.
- 1998—Preconstruction engineering and design efforts begun.
- 1999—Project authorized for construction in the Water Resource Development Act of 1999.
- 2000—Plans, specifications, and design work for Stage 1 completed.
- 2000—Congress appropriates \$1 million for Stage 1 construction.
- 2000—Plans and Specifications for Stage 2 commenced.
- 2001—Corps of Engineers total cost estimates for the project to be \$10.8 million.
- 2001—Congress provides \$2 million for the construction of Stage 2 of the Crookston Flood Control Project in the fiscal year 2002 Energy and Water Appropriations Bill.
- 2002—Bids were accepted and construction contract awarded for Stage 2 work.
- 2002—Congress provides \$3.202 million to complete Stage 2 construction work.
- 2002—The Feasibility Report Supplement was completed.
- 2003—Construction work continues on Stage 2.
- 2003—House Transportation and Infrastructure Committee reauthorizes Crookston Flood Control Project to include Sampson and Chase/Loring neighborhoods.
- 2003—Request made to Congress for \$1.2 million to provide flood protection for the Sampson and Chase/Loring neighborhoods.
- 2003—Senate delays passage of the Water Resources Development Act until 2004.
- 2004—Senate Environment and Public Works schedule WRDA mark-up for Spring, 2004.

NON-FEDERAL CONTRIBUTIONS TO THE PROJECT

The citizens of Crookston have demonstrated their commitment to the project each year since 1997. Every year for since 1997, they have voted to assess themselves a flood control project fee, over and above their property taxes. This action by the community has resulted in raising about \$1.4 million up to the present time. One third of these local funds were used to meet part of the 50 percent match for the \$1.2 million feasibility study, and the remainder will be used as a part of the non-Federal match for the construction Stages of the flood control project.

The State of Minnesota has also made a significant contribution to the project. They have appropriated \$3.3 million for the dual purpose of providing funds to match the Federal contribution, and to buy out homes that have been lost in the

construction of the flood control measures. Nineteen families were required to lose their homes to the project, including one farm. The State funds were used both for the purchase of the homesteads, and the relocation of the affected families.

For these reasons, we respectfully request this subcommittee to appropriate \$1.2 million of Federal funds in the fiscal year 2004 Appropriations Act to be used for the environmental assessment, preconstruction costs, and immediate work on the protection of the electrical substation and the pumping stations to avoid severe personal, ecological and environmental disasters in the Community. The committee's favorable response to this request will prevent any delays affecting the completion of the project, and avoid cost overruns that inevitably occur when construction is delayed.

In closing, I would like to say there is nothing more important to me as Mayor, and to each Member of the Crookston City Council, than the safety of our citizens, and the protection of their homes and property. We can not give them this assurance until we have completed this flood control project. May I also say that our association with the St. Paul District of the Army Corps of Engineers throughout this process has been outstanding. They are an extraordinary organization, working on the scene during flood conditions, and assisting us as we attempt to resolve this problem that threatens our citizens. We could not ask for a better partner in this project.

Thank you for the opportunity to bring this important matter to your attention through this statement. I will be delighted to respond to any questions you may have about the project.

PREPARED STATEMENT OF THE SOUTHEASTERN FEDERAL POWER CUSTOMERS, INC.

Mr. Chairman and members of the subcommittee, on behalf of the Southeastern Federal Power Customers, Inc. ("SeFPC"), I am pleased to provide testimony in reference to the administration's fiscal year 2005 budget request for the Army Corps of Engineers ("Corps"). My testimony will focus primarily on the budget request for the Corps' South Atlantic Division ("SAD") and the Nashville District of the Great Lakes and Ohio River Division ("LRD"). In addition, the SeFPC customers would like to express our interests related to proposed legislation that would authorize direct funding for Corps' Operations and Maintenance ("O&M") activities at Federal hydropower projects.

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 of the 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, and 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, who greatly rely on this power.

DRASTIC CUTS IN THE CORPS' BUDGET

The SeFPC membership is dedicated to providing reliable and economic power for its consumers. We therefore are concerned that the President has proposed a 13 percent reduction in the Corps' budget for fiscal year 2005. With these reductions in funding, the Corps will not be able to undertake the O&M and Renewals and 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 infrastructure of hydropower projects whose output is marketed by SEPA. The proposed reductions will particularly 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. We remain especially troubled by the badly needed rehabilitation of generating facilities in the Cumberland River System operated and maintained by LRD, as well as other Federal hydropower generating facilities throughout the Southeast. The age of many of the hydroelectric generating facilities in SEPA's service area is nearing the 50-year mark, when major rehabilitations are critical if the projects are to continue. Regrettably, the fiscal year 2005 budget request does not place a high priority on these critical needs.

When a generating unit becomes inoperable, SEPA may be forced to pursue the purchase of expensive replacement power; this could result in a reduction of energy and capacity, forcing the SeFPC members to purchase expensive capacity elsewhere. This has occurred so frequently in the last several years that the new SEPA rate design now includes a charge by customers to cover this replacement power. Such a result is inappropriate because preference customers already have contributed to the Corps' O&M and R&R expenses, in essence double-charging the customers and their consumers. In fact, revenue from the rates paid by the preference customers has enabled SEPA to repay on time the original investment incurred to construct these projects. However, when generating units deteriorate, reliability decreases, and O&M expenses greatly increase.

We are working on a long-term customer funding proposal that would facilitate this badly needed R&R work at hydroelectric facilities in the LRD. We anticipate, however, that this long-term initiative will not be finalized for a number of years. In the meantime, some of these facilities will not be able to continue generating 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 U.S. 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 hydropower share of joint costs of dam activities that also benefit recreation, navigation and flood control. To date, preference customers have paid in SEPA rates over \$114 million in excess of amounts spent by the Corps on O&M and R&R.

The administration's fiscal year 2005 budget request proposes to alter this funding arrangement. This year's budget includes a provision from the President's fiscal year 2003 and fiscal year 2004 requests calling for direct funding of routine O&M for hydropower facilities marketed by SEPA and the other Federal PMAs. While we support the concept of direct funding for O&M expenses, we want to ensure that any direct funding legislation would include safeguards to prevent the Corps from utilizing an alternative source of funding that could lead to significant rate increases. Specifically, we believe the PMAs must have the final say in determining the amount of funding available for the Corps each year. In this regard, funds provided for Corps' O&M should under this new mechanism have a neutral effect on rate levels. Also, the Corps and the PMAs must consult with the PMA customers regarding amounts the PMAs will collect for O&M activities. Finally, the Corps must be prohibited statutorily from reprogramming funds provided by the PMAs under this direct funding mechanism.

In advancing the direct funding proposal, the administration has reduced funds in the Corps' O&M budget by \$150 million. Therefore, in the event the proposed legislation is not enacted, this funding should be restored to the Corps' O&M budget.

Thank you in advance for your consideration of our comments on the administration's fiscal year 2005 budget request for the Corps.

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 \$10 million in the Army Corps of Engineers budget for the Rio de Flag flood control project in fiscal year 2005. 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 \$3.5 million to continue 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 2005.

Like many other projects under the Army Corps' jurisdiction, Rio de Flag received no funding in the president's fiscal year 2005 budget, although the Corps has expressed capability of \$10 million to continue construction on the project. We are

hopeful that the subcommittee will fund the Rio de Flag project at \$10 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 management; (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 devastated the West during 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. This is why the City believes it is important to ensure that this project remains on schedule and that the Corps is able to maximize its capability of \$10 million in fiscal year 2005 for construction of this 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 consider this advice and also place the project high on its priority list and fully fund the project at \$10 million for fiscal year 2005.

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 cost is estimated to be \$30,000,000 in and above the reconnaissance study or the feasibility study. The Non-Federal share is currently \$10,500,000 and the Federal share is currently \$19,500,000. Final project costs must be adjusted based on Value Engineering and final design features. It is important to note the City of Flagstaff has already committed more than \$10,500,000 to this project, and an additional \$2,000,000 in excess of its cost share agreement. This clearly demonstrates the City's commitment to completing this important project.

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 2004. 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 construction will commence in 2004. Phase II of the project is scheduled to commence in April of 2005.

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 \$19 million—will be saved exponentially in costs to the Fed-

eral 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 \$10 million for this project in the fiscal year 2005 Energy and Water Development Appropriations bill. Thank you in advance for your consideration.

PREPARED STATEMENT OF THE FIFTH LOUISIANA LEVEE DISTRICT

In order to continue the essential level of construction on the Mississippi River and Tributaries Project (MR&T), and to provide proper maintenance of the completed portions, it is crucial that the \$450 million, as requested by the Mississippi Valley Flood Control Association for fiscal year 2005 (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.

We urge Congress to increase the \$4.21 billion contained in the President's Budget Request for the entire Corps of Engineers' Works Program. At least \$6.00 billion is required in order that the Corps not halt or delay contracts, shut down facilities, or otherwise disrupt the economic well-being of this Nation. Failure to provide this much needed additional funding will have a serious detrimental effect on the economic conditions in our already depressed area.

We continue to emphasize our objection to dividing the U.S. Army Corps of Engineers into separate, smaller entities and transferring to the administration of other established departments. 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.

We urge your support for protection of the structure of the U.S. Army Corps of Engineers as it currently exists.

We respectfully request that funds be increased for the Corps of Engineers' Works Program and \$450 million be appropriated for the MR&T Project for the coming fiscal year.

MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2005 CIVIL WORKS REQUESTED BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES PROJECT—MAINTENANCE

Project	President's Budget	MVFC Request
Wappapello Lake, MO	\$4,046,000	\$6,352,000
Mississippi River Levees	7,665,000	14,915,000
Dredging	20,515,000	20,515,000
Revetment and Dikes	48,760,000	48,760,000
Memphis Harbor, TN	1,205,000	2,010,000
Helena Harbor, TN	385,000	510,000
Greenville Harbor, MS	29,000	412,000
Vicksburg Harbor, MS	32,000	345,000
St. Francis River & Tribs, AR	6,080,000	8,805,000
White River Backwater, AR	1,316,000	2,260,000
North Bank, Arkansas River, AR	146,000	146,000
South Bank, Arkansas River, AR	122,000	122,000
Boeuf & Tensas Rivers, LA	2,160,000	2,160,000
Red River Backwater, LA	3,083,000	7,390,000
Yazoo Basin, Sardis Lake, MS	7,046,000	19,322,000

**MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2005 CIVIL WORKS REQUESTED
BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES PROJECT—MAINTENANCE—Continued**

Project	President's Budget	MVFA Request
Yazoo Basin, Arkabutla Lake, MS	5,710,000	12,900,000
Yazoo Basin, Enid Lake, MS	4,954,000	13,679,000
Yazoo Basin, Grenada Lake, MS	5,553,000	10,101,000
Yazoo Basin, Greenwood, MS	585,000	2,035,000
Yazoo Basin, Yazoo City, MS	729,000	729,000
Yazoo Basin, Main Stem, MS	1,013,000	3,966,000
Yazoo Basin, Tributaries, MS	923,000	923,000
Yazoo Basin, Whittington Aux Channel, MS	400,000	400,000
Yazoo Basin, Big Sunflower, MS	139,000	2,139,000
Yazoo Basin, Yazoo Backwater, MS	440,000	926,000
Lower Red River, South Bank, LA	105,000	105,000
Bonnet Carre, LA	2,310,000	3,100,000
Old River, LA	7,350,000	29,900,000
Atchafalaya Basin, LA	13,000,000	25,000,000
Atchafalaya Basin Floodway, LA	2,775,000	4,200,000
Baton Rouge Harbor Devil's Swamp, LA	14,000	300,000
Miss Delta Region, LA	588,000	588,000
Bayou Cocodrie & Tribs, LA	65,000	65,000
Inspection of Completed Works	1,500,000	1,700,000
Mapping	1,112,000	1,325,000
Total MR&T Maintenance	151,855,000	248,105,000

**MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2005 CIVIL WORKS REQUESTED
BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS**

Project and State	President's Budget	MVFA Request
Surveys, Continuation of Planning and Engineering & Advance Engineering & Design:		
Memphis Harbor, TN		
Germantown, TN	\$27,000	\$27,000
Millington, TN	100,000	100,000
Fletcher Creek, TN	93,000	93,000
Memphis Metro Storm Water Management, TN		100,000
Bayou Meto, AR		2,447,000
Germantown, TN		200,000
Southeast Arkansas		600,000
Coldwater Basin Below Arkabutla Lake, MS	203,000	750,000
Quiver River, MS		100,000
Spring Bayou, LA	500,000	600,000
Point Coupee to St. Mary Parish, LA		100,000
Atchafalaya Basin Floodway System, LA*	100,000	100,000
Alexandria, LA to the Gulf of Mexico	435,000	435,000
Morganza, LA to the Gulf of Mexico	1,500,000	10,000,000
Donaldsonville, LA to the Gulf of Mexico	800,000	1,200,000
Tensas River, LA		500,000
Donaldsonville Port Development, LA		100,000
Collection & Study of Basic Data	700,000	700,000
Subtotal, Surveys, Continuation of Planning & Engineering & Advance Engineering & Design	4,458,000	18,152,000
Construction:		
St. John's Bayou-New Madrid Floodway, MO	8,300,000	8,300,000
Eight Mile Creek, AR	1,357,000	3,293,000
Helena & Vicinity, AR		
Grand Prairie Region, AR		20,000,000
Bayou Meto, AR		18,000,000
West Tennessee Tributaries, TN		700,000
Nonconnah Creek, TN	2,153,000	2,753,000

**MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2005 CIVIL WORKS REQUESTED
BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS—Continued**

Project and State	President's Budget	MVFA Request
Wolf River, Memphis, TN .....	.....	2,400,000
August to Clarendon Levee, Lower White River, AR .....	.....	2,000,000
St. Francis Basin, MO & AR	3,000,000	9,500,000
Yazoo Basin, MS	5,850,000	62,775,000
Atchafalaya Basin, LA	22,495,000	32,500,000
Atchafalaya Basin Floodway, LA	7,200,000	10,000,000
MS Delta Region, LA	1,800,000	4,700,000
Horn Lake Creek, MS .....	.....	203,000
MS & LA Estaurine Area, MS & LA .....	.....	50,000
Channel Improvements, IL, KY, MO, AR, TN, MS & LA	36,882,000	44,082,000
Mississippi River Levees, IL, KY, MO, AR, TN, MS & LA	38,960,000	54,800,000
Subtotal, Construction	127,997,000	276,056,000
Subtotal, Maintenance	151,855,000	248,105,000
Subtotal, Mississippi River & Tributaries	284,310,000	542,313,000
Less Reduction for Savings & Slippage	— 14,310,000	92,313,000
Grand Total, Mississippi River & Tributaries	270,000,000	450,000,000

**PREPARED STATEMENT OF THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND
DEVELOPMENT**

On behalf of the State of Louisiana and its twenty levee boards, we present recommendations for fiscal year 2005 appropriations for 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. When combined with the other interstate rivers flowing through the State, almost 50 percent of the contiguous land mass of this Nation drains through Louisiana. This same river drainage system forms the backbone of the federally constructed Inland Waterway System that provides our heartland cost effective access to the global marketplace via the 230 mile deepwater channel of the lower Mississippi River from Baton Rouge to the Gulf. This strategic gateway to international markets is the largest port complex in the world ranking Louisiana first in the Nation in volume of waterborne traffic. We are distressed that the Administration's budget proposals in recent years indicate a lack of concern for the preservation and efficient operation of this system. The Inland Waterway System—the whole system—allowed industrial facilities scattered throughout the central portion of the Nation to obtain raw materials and fuel from distant locations and to reach worldwide markets. These industries, and most of the agricultural industries in mid-America, are heavily dependent on the federally maintained navigable waterways to remain globally competitive in transporting their products. To consider maintenance of only the main-stem portion of the waterway system at the expense of the connector branches will wreak havoc on the economies of all the communities located on these so-called low-use branch waterways.

A comprehensive and extensive flood control system is required to protect the landside facilities and related industries supporting that waterborne commerce. In Louisiana there are almost 3,000 miles of levees (1,500 in the MR&T system) constructed jointly by Federal, State and local entities that provide protection from riverine and tidal flooding. 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. 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. But these same levees and channel improvements that benefit the entire Nation have been blamed for the rapid deterioration of our coastal wetlands. The loss of these wetlands is adversely impacting both the area's natural resources and the effectiveness of our hurricane protection system. These wetlands are not Louisiana's alone; they constitute 40 percent of the Nation's wetlands and their restoration must be considered a national priority.

The Mississippi River and Tributaries Project (MR&T) has been underway since 1928 and isn't scheduled for completion until beyond 2031. The Administration's proposed budget of \$270 Million for fiscal year 2005 is totally unacceptable. We strongly support the Mississippi Valley Flood Control Association's request for \$450 Million for the MR&T Project. We urge support of this requested level of funding.

In making the following funding recommendations for Louisiana projects 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 continue to fund our requests. It is appropriate that the Federal Government has committed to providing combined flood control and navigation measures that benefit the economy of both Louisiana and the rest of the Nation. We believe these types of water resources projects are the most cost effective projects in the Federal budget, having to meet stringent economic criteria not required by other programs.

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 for fiscal year 2005. We solicit your favorable consideration and request this statement be included in the formal hearing record.

The State of Louisiana requests funding for the following projects that differs from what is in the fiscal year 2005 Administration Budget or is a project 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 & WATER RESOURCES PROJECTS
SUMMARY OF RECOMMENDED APPROPRIATIONS FISCAL YEAR 2005 FOR LOUISIANA**

Louisiana	Administrative Budget	Louisiana Request
GENERAL INVESTIGATIONS:		
STUDIES:		
Amite River-Ecosystem Restoration, LA	\$250,000	\$250,000
Amite River & Tributaries, LA—Bayou Manchac	100,000	1,000,000
Atchafalaya River, Bayous Chene, Boeuf & Black, LA	350,000	800,000
Calcasieu Lock, LA	200,000	1,000,000
Calcasieu River Basin, LA	350,000	350,000
Calcasieu River Pass Ship Channel Enlargement, LA	50,000	500,000
Hurricane Protection, LA .....	.....	200,000
LCA—Ecosystem Restoration, LA	8,000,000	12,000,000
Mississippi River Gulf Outlet, LA	225,000	225,000
Plaquemines Parish, LA	300,000	500,000
Port of Iberia, LA	350,000	730,000
St. Bernard Parish Urban Flood Control, LA	300,000	550,000
St. Charles Parish Urban Flood Control, LA	300,000	800,000
St. John the Baptist Parish, LA .....	.....	600,000
Southwest, AR (AR, LA) .....	.....	427,000
Bossier Parish Levee & FC .....	.....	385,000
Cross Lake Water Supply .....	.....	500,000
JBWW .....	.....	100,000
Pearl River, MS & LA .....	.....	100,000
Pearl River, Bogalusa (MS) .....	.....	100,000
PED:		
Bayou Sorrel Lock, LA	550,000	550,000
Lafayette Parish, LA .....	.....	327,000
West Shore—Lake Pontchartrain, LA .....	.....	400,000
West Baton Rouge Parish, LA .....	.....	500,000
NEW STUDIES:		
Bayou Nezpique Watershed, LA .....	.....	100,000
Millennium Port, LA .....	.....	100,000
Port Fourchon Enlargement, LA .....	.....	100,000
Port of West St. Mary .....	.....	100,000
Southwest La Multi-Purpose Water Resources, LA .....	.....	100,000
Tangipahoa River Ecosystem Restoration, LA .....	.....	100,000
CONSTRUCTION GENERAL:		
Comite River, LA	1,500,000	9,900,000
East Baton Rouge Parish, LA .....	.....	8,000,000
Grand Isle, LA .....	.....	1,900,000
Inner Harbor Navigation Canal Lock, LA (IWWTF & CG)	10,000,000	24,000,000

FLOOD CONTROL, NAVIGATION, HURRICANE PROTECTION & WATER RESOURCES PROJECTS
SUMMARY OF RECOMMENDED APPROPRIATIONS FISCAL YEAR 2005 FOR LOUISIANA—Continued

Louisiana	Administrative Budget	Louisiana Request
Lake Pontchartrain, LA	3,937,000	22,500,000
Larose to Golden Meadow, LA	583,000	1,500,000
New Orleans to Venice, LA	2,965,000	6,600,000
Southeast, LA	30,000,000	78,000,000
West Bank and Vicinity, New Orleans, LA	37,000,000	59,800,000
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	4,000,000	20,000,000
Ouachita River Levees		3,800,000
OPERATIONS & MAINTENANCE GENERAL:		
Atchafalaya River, Bayous Chene, Boeuf & Black	13,813,000	26,600,000
Barataria Bay Waterway		4,600,000
Bayou Lacombe		860,000
Bayou Lafourche		1,100,000
Bayou Segnette		1,400,000
Bayou Teche		300,000
Calcasieu River & Pass	13,285,000	21,800,000
(T) Chefuncte River		800,000
Freshwater Bayou	1,678,000	3,700,000
Grand Isle, LA & Vicinity		800,000
Gulf Intracoastal Waterway	17,476,000	27,300,000
Houma Navigation Canal	3,070,000	3,300,000
Mermentau River	4,410,000	6,500,000
Mississippi River, Baton Rouge to the Gulf	59,125,000	74,400,000
Mississippi River—Gulf Outlet	13,004,000	45,000,000
Mississippi River, Outlets at Venice	424,000	3,700,000
Tangipahoa River		800,000
Waterway Empire to the Gulf		240,000
Waterway Intracoastal Waterway to Bayou Dulace		200,000
Ouachita & Black Rivers (AR, LA)	1,974,000	18,123,000
Bayou Bodcau	776,000	776,000
Caddo Lake	182,000	182,000
Wallace Lake	290,000	290,000
Bayou Pierre	28,000	28,000
J Bennett Johnston Waterway	10,600,000	18,098,000
Lake Providence Harbor	38,000	451,000
Madison Parish Port	20,000	120,000

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

MISSISSIPPI RIVER AND TRIBUTARIES SUMMARY OF RECOMMENDED APPROPRIATIONS FISCAL
YEAR 2005 FOR 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	1,500,000	10,000,000
Collection & Study Data	200,000	200,000
Collect & Study of Basic Data (AR, LA, MS)	300,000	300,000
Spring Bayou Area, LA	500,000	600,000
Tensas River Basin, LA	0	500,000
NEW STUDIES: Atchafalaya Basin Floodway System Land Study, LA	0	100,000
FC, MR&T CONSTRUCTION:		
Atchafalaya Basin	22,495,000	32,500,000
Atchafalaya Basin Floodway System	7,200,000	10,000,000
Channel Improvement	10,105,000	10,105,000
Mississippi Delta Region (FED)	1,800,000	4,700,000
Mississippi River Levees, LA	2,680,000	2,680,000
MS—LA Estuarine Area	0	50,000
Mississippi River Levees (AR, LA, MS)	20,850,000	30,850,000

MISSISSIPPI RIVER AND TRIBUTARIES SUMMARY OF RECOMMENDED APPROPRIATIONS FISCAL
YEAR 2005 FOR LOUISIANA—Continued

Louisiana	Administrative Budget	Louisiana Request
Channel Improvement (AR, LA, MS)	13,582,000	16,782,000
FC, MR&T MAINTENANCE:		
Atchafalaya Basin	13,000,000	25,000,000
Atchafalaya Basin Floodway System	2,775,000	4,200,000
Baton Rouge Harbor (Devil's Swamp)	14,000	300,000
Bayou Cocodrie and Tributaries	65,000	65,000
Bonnet Carre Spillway	2,310,000	3,100,000
Channel Improvement	15,675,000	15,675,000
Dredging	700,000	700,000
Inspection of Completed Works	383,000	383,000
Mapping	396,000	396,000
MS Delta Region	588,000	588,000
Mississippi River Levees, LA	790,000	5,200,000
Old River	7,350,000	29,900,000
Mississippi River Levees (AR, LA, MS)	2,670,000	3,270,000
Revetments & Dikes (AR, LA, MS)	13,400,000	13,400,000
Dredging (AR, LA, MS)	6,265,000	6,265,000
Mapping (AR, LA, MS)	329,000	329,000
Inspection of Completed Works (AR, LA, MS)	338,000	338,000
Boeuf & Tensas Rivers	2,160,000	2,160,000
Red River Backwater	3,083,000	7,390,000
Lower Red River	105,000	105,000

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.

PREPARED STATEMENT OF THE ASSOCIATION OF STATE DAM SAFETY OFFICIALS

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 2005. 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 2000 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 this data to compute State grant assistance funds, in accordance with the Na-

tional Dam Safety Program and to assess the status of Federal and non-Federal dams.

There are over 78,000 dams on the National Inventory of Dams in the country. It is essential that this data be current and accurate in order to have access to this critical data when needed and to be able to track trends in assessing dam safety improvements. The NID can meet this need, but it is only as accurate as the last update. The NID has not been updated since 2000. The database must be continually updated as 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 agencies 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.

Correct and timely data is vital to the national effort to assess and protect our critical infrastructure, including dams, from intentional acts of terrorists. The Homeland Security Presidential Directive No. 7 requires the Federal Government to "protect critical infrastructure and key resources" and includes a "strategy to identify, prioritize and coordinate the protection of critical infrastructure." This cannot be accomplished without an accurate NID.

Continuing updates and improvements to this database resource should be a higher 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 NID is also an integral part of the biennial report to Congress which evaluates the performance of the National Dam Safety Program and status of the safety of the Nation's dams.

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 \$222,000 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 700 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 applauds the administration's recognition of the importance and value of the USACOE's Dam Safety Program and the need to fund dam maintenance of USACOE dams. ASDSO 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 that the subcommittee:

- Support the administration's increase in appropriations for the USACOE Dam Safety Program non-project management funds at \$250,000;
- Increase in appropriations for the USACOE Dam Security Program non-project management funds to \$100,000 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;
- Restore the USACOE "Planning Assistance to States Program" to the \$6,500,000 of fiscal year 2004 from the proposed \$4,650,000 to provide much needed assistance to the States to cost-share dambreak modeling, flood studies, developing emergency evacuation plans and to jointly conduct security vulnerability assessments; and

—Support the administration's fiscal year 2005 budget for \$35,000,000 for emergency maintenance/repairs.

Finally, while the security of the USACOE dams is currently a major priority, the continued safety, repair and maintenance of the USCOE dams should also continue as a major appropriations priority and 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.

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 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 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. In this regard, we must maintain our inland waterway transportation system. We ask that the Congress restore adequate funding to the Corps of Engineers budget—\$5.5 billion in fiscal year 2005—to keep the Nation's navigation system from further deterioration. If this catastrophic problem is not addressed immediately, we are in real danger of losing the use of this most important transportation mode.

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.

Backlog of Channel Structure Maintenance McClellan-Kerr Arkansas River Navigation System

A \$10 million Congressional add to the fiscal year 2005 Operation and Maintenance budget is urgently needed for critical repairs to damaged and deteriorated dikes and revetments to maintain channel alignment and provide original channel configuration while reducing the need for dredging.

Equus Beds Aquifer—Kansas

Equus Beds Aquifer Storage and Recovery Project.—Continuation of a City of Wichita, Groundwater Management District No. 2 and State of Kansas project to construct storage and recovery facilities for a major groundwater resource supplying water to more than 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 of the project and continued Federal funding is requested in the minimum amount of \$1.5 million for fiscal year 2005.

Arkansas River System Operations Feasibility Study, Arkansas and Oklahoma

This study will evaluate how to 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 will accommodate tows. It will also investigate the impacts of deepening and widening the navigation channel. We request funding in the amount of \$1.253 million to complete the study in fiscal year 2005. This is \$735,000 above the President's budget request of \$500,000.

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

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

PREPARED 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 McQuin 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.

We call to your attention three projects on the McClellan-Kerr Arkansas River Navigation System (the "System") that are especially important to navigation and the economy of this multi-State area: Backlog of Channel Structure Maintenance, Maintenance Dredging, and Ark-White Cutoff as related to the Arkansas River.

Backlog of Channel Structure Maintenance

- A \$10 million Congressional Add to the fiscal year 2005 Operation and Maintenance Budget is urgently needed for critical repairs to damaged and deteriorated dikes and revetments to maintain channel alignment and provide original channel configuration while reducing the need for dredging.
- More than a decade of neglect to our navigation structures while funding the construction of Montgomery Point Lock & Dam has created a critical backlog of channel structure work that threatens the viability of the McClellan-Kerr Arkansas River Navigation System.
- Current grain prices offer a rare potential for our farming mid-section of the Nation yet a failure to deliver these commodities to market due to neglect of our transportation system would have serious economic impacts rippling through the entire Arkansas River Basin.

Maintenance Dredging

- A \$3 million Congressional Add is needed for Maintenance Dredging in known problem areas with siltation capable of restricting or closing the navigation channel.
- A closure of the System for even a short period would create transportation problems with devastating economic impacts on Arkansas and our Nation at a time when commodity shipments are at record levels.
- These funds will help ensure the System remains open and allow users to maximize tonnage by preventing the need for light loading.

Ark-White Cutoff

- A cutoff is developing between the Arkansas and White Rivers which, if not corrected, could have dramatic adverse effects on the navigation system as well as significant bottomland hardwoods and pristine environment that provides unique wildlife habitat in southeast Arkansas.
- Unless corrected, it is inevitable that a major cutoff will occur negatively impacting navigation on the river, significantly increasing siltation and dredging requirements and, at worst, cutting off the lower end of the Navigation System from the Mississippi River.
- Therefore, a \$2 million Congressional Add is needed to further the study of this area and lead to a solution, which will prevent erosion, cutoffs, and detrimental siltation.

In addition to these three vital requests, we urge you to continue to support funding for the Construction, and Operation and Maintenance of the McClellan-Kerr Arkansas River Navigation System which provides low-cost and dependable transportation for farm products, construction aggregates, raw materials and finished products important to our Nation's economic recovery.

It is also most important that you continue construction authority of the McClellan-Kerr Project until remaining channel stabilization problems identified by the Little Rock District Corps of Engineers have been resolved. The Corps needs to de-

velop a permanent solution to the threat of cutoffs developing in the lower reaches of the navigation system and to use environmentally sustainable methods under the existing construction authority.

Mr. Chairman, we appreciate the work of this essential committee and thank you for your efforts that contribute so much to the social and economic well-being of the United States of America.

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

COLORADO

PREPARED STATEMENT OF JAMES BRODERICK, CHAIRMAN FOR COLORADO

Mr. Chairman and members of the committee, we greatly appreciate the opportunity to present testimony before this committee. My name is James Broderick, I am the Executive Director of the Southeastern Colorado Water Conservancy District and serve as Colorado Chairman for the Interstate Committee.

The critical water resource projects in the Colorado portion of the Arkansas River Basin are summarized below. The projects are environmental and conservation oriented and have regional and multi-State impact. We are grateful for your leadership and your past commitment to our area.

This request is for two projects \$554,000 to provide for:

—*Design, installation, and operation of weighing lysimeters at the Colorado State University Agricultural Experiment Station at Rocky Ford, Colorado (\$422,000).*—Install and operate a set of three monolithic continuous weighing (direct load cell) lysimeters to accurately measure evapotranspiration of a reference crop and of production crops under a variety of field conditions typical of the lower Arkansas River Valley in Colorado.

—*Enhancement of the CoAgMet Electronic Weather Station Network in the Lower Arkansas River Basin (\$132,000).*—Enhance and improve the existing and new Colorado Agriculture Meteorological (CoAgMet) weather in the Lower Arkansas River Basin and provide for its adequate operation and maintenance in order to provide accurate data for predicting evapotranspiration using the Penman-Monteith method.

In recent litigation the Penman Monteith method has been recognized as the preferred procedure for calculating crop water use, replacing the Blaney-Criddle method historically used in Colorado. The importance of this change is that the Penman Monteith method, requires more data and information than Blaney-Criddle in order to be used properly. The Penman-Monteith method will increasingly be used to calculate crop consumptive use to determine the transferable consumptive use for changes of agricultural water rights to municipal use in the Arkansas River Basin and elsewhere in the State.

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 our request for needed infrastructure investments in the natural and transportation resources of our Nation.

KANSAS

PREPARED 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 other Arkansas River Basin States to form the multi-State Arkansas Basin Development Association. We fully endorse the summary statement presented to you by the Chairman of the Arkansas River Basin Interstate Committee.

We are pleased to report that the Montgomery Point Lock and Dam Project will be operational by July 2004 and that a formal dedication ceremony is scheduled for July 16, 2004. Completion of this critical project through your support will 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. The Federal Government invested \$1.3 billion in the project. Other public and private investment totals in excess of \$4.2 billion and over 50,000 jobs have been created. Increasing the depth of the navigation channel to 12 feet will increase the performance of

the navigation system by allowing shippers to move one-third more cargo per barge. We request funding in the amount of \$1.235 million to complete Phase II of the Arkansas River System Operations Feasibility Study which will examine the feasibility of increasing the channel depth.

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 past commitment to critical needs in Kansas.

We ask for your continued support for this important Bureau of Reclamation project 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 one 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; and
- 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 2005.

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 Corps of Engineers projects in Kansas 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 but the funding is not adequate in the President's budget. We request your continued support in the amount of \$3.619 million, which is \$2.619 million above the President's budget request so the Corps of Engineers can complete this project.

- Walnut River Basin, Kansas Feasibility Study.*—This basin including the White-water and Little Walnut Rivers is located in south central Kansas. The feasi-

bility 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 need for fiscal year 2005 is \$305,000 which is \$86,000 more than the President's budget request.

—*Silver-Grouse Creek Reconnaissance Study.*—The Silver-Grouse Creek area in south central Kansas is a location of natural geologic, archaeological and biologic attributes of the watershed. Periodic flooding downstream of the reconnaissance area impacts neighboring Oklahoma. Smaller Kansas communities without technical, financial and managerial capacities are all investigating future sources of water supply which potentially could be satisfied through impoundment of water. A reconnaissance study will identify water resource, flooding and ecosystem restoration issues and will also establish whether there is Federal interest in feasibility level studies. The Cowley County Commission has requested a feasibility study be conducted by the Corps. The Lt. Governor of Kansas has requested an evaluation through the State Water Planning Process and the Kansas Water Authority has supported this request. Funding is requested in the amount of \$100,000 for fiscal year 2005.

—*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 \$450,000 in fiscal year 2005 to fully fund Feasibility studies evaluating solutions to upstream flooding associated with existing easements necessary for flood control operations of Grand Lake. Although this has been a Congressional add for the past 2 years, no money was made available in the fiscal year 2005 President's budget request.

—*Grand (Neosho) Basin 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. A federal interest has been determined from the reconnaissance study as a result from a Congressional add in fiscal year 2003 and another add appropriated in fiscal year 2004. Additional funds are needed to continue the feasibility stage of the project. The 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 \$225,000 in fiscal year 2005.

—*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), Aquatic Ecosystem Restoration (Section 206 of the 1996 Water Resources Development Act, as amended), Ecosystem Restoration (Section 1135 of the 1986 Water Resources Development 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 the Section 205 and Section 14 programs. The City of Wichita is also requesting funding through these programs to address flooding problems. We urge you to support an increase of these programs to a \$65 million programmatic limit for the Small Flood Control Projects Program, \$35 million for Aquatic Ecosystem Restoration, \$35 million for the Ecosystem Res-

toration Program and \$25 million for the Emergency Streambank Stabilization Program.

The 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.

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 \$10 million programmatic limit which will allow the State of Kansas to receive the \$500,000 limit.

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

PREPARED 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, who also serves as Chairman of the combined Arkansas River Basin Interstate Committee.

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.—We have come to you with requests for funding for this much-needed project for many years now. We are pleased to tell you this year we will not ask for additional funds for this project as it is due to be operational by July. We will have a formal dedication on July 16, 2004 at the site. We are very grateful for your help and support to see this project through to its completion.

There may well be some funds needed for final cleanup and additional maintenance and operational equipment. In that event the Corps of Engineers should be able to schedule those funds from their regular appropriations.

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 three decades.

In addition to the system-wide 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 \$3.8 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 No. 14, Robert S. Kerr Lock and Dam No. 15, and Webbers Falls Lock and Dam No. 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. Phase II of this study will also examine the feasibility of increasing the depth of the navigation channel to 12'. This will allow the shippers to move one-third more cargo per barge drafting 11½' at near the current rate for 8½' draft barges. 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 \$1.235 million, which is greater than shown in the budget, to complete feasibility studies in fiscal year 2005.

The Power Plant at Webbers Falls Lock and Dam on the Arkansas River has suffered from greatly reduced reliability due to turbine design problems. Because this is a run-of-the-river facility with no storage, energy spilled due to off-line units is energy that is lost forever. A feasibility study recommending major rehabilitation of this unit has been approved by the office of the Chief of Engineers.

Similar problems have been experienced at Ozark-Jeta Taylor Lock and Dam on the Arkansas River in Arkansas. Congress approved a new start and funding to begin the major rehabilitation of the Ozark powerhouse in fiscal year 2003. The administration's fiscal year 2005 budget request includes \$5 million in Construction General funding to continue this major rehabilitation.

The turbines at the Ozark project are identical to the slant-shaft turbines employed at Webbers Falls. The major rehabilitation plans for both projects call for bidders to submit plans for new turbine designs, with the two best bidders selected to proceed to model testing of their designs before choosing the best and winning bid. By combining the design selection for both projects into a single bid selection process the Corps estimated that millions of dollars could be saved. To achieve these savings, Congress would have to approve a new construction start and initial funding for the major rehabilitation of the Webbers Falls powerhouse. We respectfully urge the committee to approve the new start and provide \$4 million in initial Construction, General funding for the appropriations bill. Please know that every dollar appropriated to this project, plus interest, will be repaid to the U.S. Treasury through the rates charged for the sale of this hydroelectricity.

Miami, Oklahoma and Vicinity Feasibility Study.—We request funding of \$750,000 to move into the feasibility stage 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 im-

prove aquatic habitat and other measures to enhance the quality and availability of habitat and reduce flood damages.

Oologah Lake Watershed Feasibility Study.—We request funding of \$326,000 which is \$129,000 more than the President's budget request 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 \$225,000 to conduct a feasibility 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 indicated that there is a Federal interest in this project and the feasibility will 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. The reconnaissance study was a Congressional add new start, but no funding was put into the fiscal year 2005 President's budget request to continue into the feasibility stage.

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 \$450,000 to fund feasibility studies for this important project in fiscal year 2004 and to direct the Corps of Engineers to execute the study at full Federal expense. This project has been a Congressional add for the past 2 years, but there are no funds in the fiscal year 2005 President's budget request to continue this project.

Tenkiller Dam Safety Project.—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 Tenkiller Ferry Lakes Dam Safety Assurance Project in Oklahoma. This project is slated to be complete in fiscal year 2006 and continued funding is necessary for safety purposes and economic efficiencies. We would like to see Tenkiller funded at the \$4.4 million level, which is the Corps' capability for fiscal year 2005.

Canton Dam Safety.—We request that funding in the amount of \$5.0 million be provided to continue the Canton Lake Dam Safety Project. The stability of the existing spillway requires restrictions on the flood control pool. The flood pool can only be held to a 17-year flood event. Installation of steel anchors is required to stabilize the existing spillway so that the project can be operated as originally designed. Funds were provided by Congress in the fiscal year 2004 Appropriations Bill to work on this important project, but the administration has not included any funds in the fiscal year 2005 President's budget.

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 increased to an annual limit of \$65 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.

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 TENNESSEE-TOMBIGBEE WATERWAY DEVELOPMENT
AUTHORITY

Mr. Chairman, I am Donald G. Waldon, Administrator of the Tennessee-Tombigbee Waterway Development Authority. I am honored to submit the authority's recommendations to you and your committee concerning fiscal year 2005 funding needs for the operation and maintenance of the Tenn-Tom Waterway and the Tennessee River system as well as construction of new locks at Kentucky and Chickamauga Dams. This is the 44th consecutive year the waterway compact has provided its recommendations to the U.S. Congress.

The Tennessee-Tombigbee Waterway Development Authority is a Federal interstate compact ratified in 1958 by the Congress to promote the development of the Tenn-Tom and its economic and commerce potential. It is comprised of the States of Alabama, Kentucky, Mississippi, and Tennessee.

We, like most other water resources development interests, are most concerned if not alarmed about the Office of Management and Budget's continued indifference

to ports and waterways as a national budget priority. The proposed budget for fiscal year 2005 for these and other programs of the U.S. Army Corps of Engineers is no exception. While the proposed budget adequately funds construction of some new locks it woefully under funds others, such as Kentucky and Chickamauga Locks on the Tennessee River. However, the proposed budget's most serious deficiency is its inability to adequately fund the operation and maintenance of completed projects. More Federal investments in the Nation's infrastructure, including its ports and waterways, will help stimulate our economy and create more job opportunities. Yet the administration's budget if approved will result in further deterioration of locks and other waterway structures, many that were built over 50 years ago, resulting in more closures and disruption of commercial shipments and less economic growth. Given the importance of these projects for helping the Nation to achieve full economic recovery, we recommend that the Congress increase the Corps' total funding next year to \$5.5 billion or about \$600 million more than that available this year.

TENNESSEE-TOMBIGBEE WATERWAY, AL AND MS

[In millions of dollars]

	Fiscal Year 2003 Approp.	Fiscal Year 2004 Approp.	Fiscal Year 2005	
			Bud. Req.	Recomm.
Operation & Maintenance	24.0	22.5	22.254	25.6
Wildlife Mitigation Payments To Alabama and Mississippi	2.0	1.5	2.0	2.0

We greatly appreciate the support your committee and the Congress have given to the Tenn-Tom in the past. The waterway saves shippers some \$90 million in transportation costs each year. It has helped attract over \$5 billion in new private investments since its completion, creating over 50,000 new jobs in the waterway region. Its attractive recreational facilities draw nearly 3 million visitors annually. Your continued strong support is critically important in fiscal year 2005 if the waterway is to continue to generate economic benefits at this level.

The proposed budget will not provide sufficient funds for the Corps to adequately maintain the navigation channel. Three locks are scheduled for closure and repairs this fall that will cost over \$1.5 million. With no increase in funding provided, this extraordinary expense will preclude other important maintenance activities such as dredging and resource management.

We are pleased that \$2 million has been budgeted to reimburse the States of Alabama and Mississippi to manage nearly 126,000 acres of wildlife habitat that is part of the Tenn-Tom Wildlife Mitigation Project. These funds are sufficient for the management of these lands. However, no funds are available for the Corps to manage some 46,000 acres of other Federal lands that are an important part of the mitigation project.

The \$25.6 million recommended for the operation and maintenance of the Tenn-Tom will ensure the waterway is adequately maintained during 2005 and generates its expected benefits. While there are other needs, the recommended increase of \$3,246,000 is important to keep the waterway channel open to commercial navigation, the Corps' top priority program as shown below:

[In millions of dollars]

	Amount
Provide adequate capacity of upland disposal areas to accept dredged materials	1.0
Additional dredging needed to keep channel open to commerce	1.3
Determine measures to limit shoaling in Aberdeen Lake, the waterway's most costly silting problem	0.5
Initiate corrective measures to eliminate a serious safety problem at Beville Lock and Dam	0.3
Eradicate noxious aquatic weeds in lakes and channels (the public's No. 1 complaint about the waterway	0.146
Total	3.246

The Corps of Engineers could efficiently use an additional \$10 million to begin addressing some of the \$12 million of urgently needed but indefinitely deferred repairs to the waterway's facilities that have accumulated due to of severe budget constraints since fiscal year 1997.

Tennessee River, TN, AL, MS, and KY

The administration's budget does not provide sufficient funds to adequately maintain the commercial navigation features of the Tennessee River system. Funds are not available to make scheduled repairs at most all of the nine locks. Maintenance dredging needed at public ports at Florence and Decatur, AL will be deferred as well as replacement of a mobile crane needed at Nickajack Lock, TN.

We recommend that \$21,449,000 or an increase of \$6,239,000 be appropriated to fund the above activities. This recommended increase includes \$350,000 and \$200,000 to dredge the public ports at Florence and Decatur, AL, respectively. The Tennessee River is one of the busiest waterways in the Nation.

Kentucky Lock, KY

Completion of a new lock to replace the nearly 60-year-old, outmoded lock at Kentucky Dam will eliminate one of the most costly bottlenecks on the entire waterway system. A commercial tow now waits an average of 4 hours to transit the lock. These delays continue to worsen as commerce grows each year. We are very disappointed the proposed budget effectively mothballs construction of this most important waterway improvement. The proposed budget of \$25,000,000 not only precludes award of any new contracts it is \$10,000,000 short of that needed to reimburse contractors for work now underway. Such a budget decision is unconscionable.

We recommend that \$55,000,000 be appropriated to keep construction of this high priority project on a more reasonable and efficient schedule. This level of funding will maintain a schedule in fiscal year 2005 that will enable the lock to be completed in fiscal year 2013 compared to 2023 or 10 years later based on a schedule anticipated by the administration budget. This is unacceptable, especially when the commercial users are paying for one-half of the new lock's cost.

Chickamauga Lock, TN

We greatly appreciate the Congress authorizing construction of a new lock to replace the old and deteriorating chamber at Chickamauga Dam in last year's bill. The \$5,400,000 appropriated this year will permit the Corps of Engineers to initiate construction and continue the detailed design needed for the new 110' x 600' lock. Regrettably, the proposed budget does not provide any funds for construction in 2005, effectively delaying start of construction until at least 2006. Unless work begins soon, the new lock will not be available when the old structure is taken out of operation during the next decade because of safety concerns. This closure would land lock 175 miles of the Tennessee River, crippling industries, including defense-related, and other shippers, located in east Tennessee.

We respectfully urge the committee to provide \$17,000,000 to continue construction of this much needed lock replacement. It is also recommended that \$1,480,000 be provided to allow the Corps to continue repairs to the existing lock to ensure its continued operation until the new lock is completed.

Thank you again for allowing the Tennessee-Tombigbee Waterway Development Authority to submit these recommendations to you for your consideration.

PREPARED STATEMENT OF KANSAS CITY, MISSOURI

Mr. Chairman, the City of Kansas City, Missouri, welcomes this opportunity to provide written testimony to the Subcommittee on Energy and Water Development regarding appropriations for fiscal year 2005 and requests that this written testimony be included in the formal hearing record.

The City of Kansas City, Missouri, in cooperation with the Corps of Engineers, presently have six major flood damage reduction projects underway. All of these projects are essential to the sustainment and revitalization of prominent and long-standing commercial, business and industrial communities in this region, and when complete will provide substantially increased levels of flood protection. Some of these projects are located on urban streams subject to severe flash flooding, which run along major roadways, resulting in an extremely hazardous threat to public safety.

Blue River Channel, Kansas City, Missouri—\$8,000,000; Continue Construction

The Blue River Channel project, currently under construction, represents our most pressing need and for fiscal year 2005 we are requesting that this project be appropriated \$8,000,000. This will allow the Corps to complete work that is already under construction, and to make some progress on the next phase of the Blue River project, which includes a grade control structure. That structure is necessary to drop the flow line of the existing channel bed to that of the newly deepened channel

downstream, which prevents the flow in the stream from eroding the channel bed upstream.

The Blue River Channel project when complete will significantly reduce the flood threat to inhabitants of the Blue Valley. Additionally, the river winds through a long-standing business district that, after much severe flooding, has now been partially abandoned. The channel improvement will bring many of these sites out of the floodplain and will reduce flooding depths by 6 to 8 feet. This will serve as a means to help reclaim Brownfield sites in the valley for redevelopment and help to rebuild a once thriving Blue Valley community.

Turkey Creek Basin, Kansas and Missouri—\$2,500,000; Continue Construction

Another very important project in the Kansas City region is the Turkey Creek Basin, Kansas and Missouri. As mentioned above this area suffered a devastating flood in 1998, which is typical every 3 to 5 years. Providing flood protection for this highly traveled business corridor has proven to be very complex and that problem had been studied for nearly 35 years. Finally in 2003 the project received reauthorization at a total cost of \$74,000,000, with a defined cost share of \$46,000,000 Federal and \$28,000,000 local. Major features of the Federal project include channel widening, a levee, hillside interceptors, and modifications to the Turkey Creek tunnel.

Funding is requested in the amount of \$2,500,000 to continue construction of a flood damage reduction project that will serve to protect the community along Southwest Blvd. in the Kansas City metropolitan area of both Kansas and Missouri. In the alternative, if an amount less than that requested can be appropriated, language is requested such that "The non-Federal Interest shall receive credit toward the non-Federal share of project costs for construction work performed by the non-Federal interest before execution of the project cooperation agreement if the Secretary finds that the work performed by the non-Federal interest is integral to the project."

This language will allow for the Unified Government of Kansas City, Kansas and Wyandotte County, and the City of Kansas City, Missouri to proceed with the Turkey Creek Tunnel modifications identified in the Final Report of the Chief of Engineers. These modifications are necessary to insure that the increased flow carried to the tunnel by the widened channel upstream can be safely passed through the tunnel to the Kansas River. This channel widening was designed by the Corps of Engineers and included in the Chief's report, and is currently under construction by the Kansas Department of Transportation.

Blue River Basin, Kansas City, Missouri—\$4,000,000; Continue Construction

The Blue River Basin, Kansas City, Missouri project, commonly known as the Dodson Industrial District Levee, is also located along the Blue River. Construction is currently underway on the floodwall portion and associated work, which is scheduled to be complete in 2005. Funding is required to pay for this work already under contract. The project requires modification of two major 96-inch diameter sewer structures in order for the levee-floodwall to function properly. The work on these elements needs to proceed in such a manner to assure that these facilities are protected during construction, are able to continue to function properly, and are not unnecessarily exposed to damage during an extended construction schedule.

The City has been working aggressively to honor our commitments to this project, and supports it moving forward in the most expeditious manner possible in order that this flood protection, which is essential to our having safe emergency access to a large portion of the City south of the Missouri River during flooding situations, can be maintained via access from the newly completed midtown expressway known as Bruce R. Watkins Drive. The City has programmed \$5 million over 3 years to meet our local sponsor cost share. The project consists of a \$17 million levee that will protect \$240 million in property investment from the 500-year flood.

Kansas Citys, Kansas and Missouri—\$650,000; Continue Feasibility Study

Study area encompasses two major rivers and seven levee units, and has four local sponsors. The levees are located along the Missouri and Kansas Rivers through the heart of the Kansas City metropolitan area, and protect its most densely developed business regions from floods. The 1993 flood came within inches of topping the Central Industrial District Levee, evidencing a need to evaluate how the seven levee units comprising the flood protection system for the Kansas City area functions as a whole, and to determine inadequacies and inconsistencies in the levels of protection. The units are Argentine, Armourdale, and Fairfax-Jersey Creek, all in Kansas; Central Industrial District, in Kansas and Missouri; and North Kansas City, Birmingham and East Bottoms, all in Missouri. Construction of these levees began in the 1940's and was completed in 1980. The Feasibility Study began in September

2000, with an estimated cost of \$2,782,323 cost shared 50 percent Federal—50 percent local funds. Funding is requested to continue the Feasibility Study to develop and study possible project alternatives, perform environmental studies, and select the plan recommended for construction. The 1970 Flood Control Act, Section 216, provides a continuing authority to reexamine completed Federal projects.

Brush Creek Basin, Kansas and Missouri—\$200,000; Continue Reconnaissance Study

Because this project provides the mechanism by which the region can work cooperatively using a watershed based approach to achieve the allied purposes of flood damage reduction, ecosystem restoration and other purposes, it is important that adequate funding be provided to collect the relevant data, coordinate among the many stakeholders, and establish cost sharing relationships needed to move forward. The City of Kansas City, Missouri and Johnson County, Kansas have committed significant local resources toward the completion of the flood mitigation and stream restoration work along Brush Creek, and are committed to continuing to support this effort and working together with the Mid-America Regional Council, Corps of Engineers, Environmental Protection Agency, Brush Creek Community Partners, and other stakeholders to achieve the goals established and agreed upon as part of the Brush Creek Basin Wide Study. Brush Creek is known as the “Cultural Corridor” in Kansas City and serves as a highly traveled business, residential and recreational corridor. This study effort aligns with the goals established by the residents, corporations, cities and other stakeholders along the creek.

Swope Park Industrial Area, Kansas City, Missouri—\$200,000; Continue Design

Development of the 53-acre Industrial Park was substantially completed prior to enactment of the Federal Flood Insurance Act, and the entire area is now located within the 100-year floodplain as currently mapped by FEMA, and is largely within the floodway. The Swope Park Industrial Area has limited access, one-way in and out, with an active railroad track crossing near the entrance to the Park, in any given year there is a 1 in 5 chance that flooding will interrupt roadway access to the Park, and an approximately 1 in 7 chance that buildings will be flooded. Especially hazard flood conditions, and a threat to public safety, exist as people and businesses must decide whether to evacuate the Park during the initial stages of flooding, or risk being stuck with no surface means of egress if the water continues to rise.

Main Street Sewer Outfall/Riverfront Heritage Trail/Missouri River Bank Stabilization—\$7,000,000; Continue Construction

We are also seeking funding for these projects to provide a safe and viable Kansas City Riverfront. This Missouri Riverfront project is comprised of five components being accomplished through a coordinated effort by public, private and non-profit organizations including Kansas City River Trails, Inc., the Port Authority of Kansas City, United States Corps of Engineers and the City of Kansas City, Missouri. Funding to complete this essential link between development both East and West of the project site is being sought from a variety of public and private sources to create a revitalized riverfront.

The bank of the Missouri River collapsed in May of 2003 causing significant damage to the Main Street Sewer Outfall that drains a large portion of the downtown Kansas City basin. The City is in the process of constructing repairs for the sewer outfall and some slope stabilization. This East/West trail connector is a vital segment of the Kansas City Riverfront Heritage Trail system within the Riverfront West area, and when constructed it will complete a bi-State bicycle, pedestrian and green space trail system stretching from the Richard L. Berkley Riverfront Park and Isle of Capri Casino at the east to the original settlement of the Town of Kansas and the Indian Cemetery in Kansas City, Kansas at the west. The Trail includes a series of interpretive artworks, kiosks and signs commemorating Lewis and Clark's Corps of Discovery journey and Kansas City's relationship to its rivers. The Habitat Restoration will be constructed by the U.S. Corps of Engineers in corporation with the Port Authority of Kansas City Missouri. Project estimates and funding availabilities are shown in the table below.

Project Component	Estimate	Funding Available	Funding Sought
Main Street Sewer Outfall	\$3,500,000	\$220,000	\$3,280,000
Slope Stabilization	2,400,000	380,000	2,020,000
East-West Trail Connection	1,750,000	30,000	1,720,000
Interpretive Center	1,600,000	200,000	1,400,000

Project Component	Estimate	Funding Available	Funding Sought
Habitat Restoration	2,500,000	500,000	2,000,000
Total	11,750,000	1,330,000	10,420,000

The City of Kansas City, Missouri appreciates the past assistance we have received with local water resource projects. We are prepared to provide our share of funding in the future, and respectfully request that Federal funding adequate to keep these very important projects moving toward the soonest possible completion be appropriated in the upcoming year.

PREPARED STATEMENT OF THE UPPER MISSISSIPPI RIVER BASIN ASSOCIATION

[In millions of dollars]

	President's Request	UMRBA Recommendation
Construction General:		
Upper Miss. River System Environmental Mgt. Program	28.000	33.250
Major Rehabilitation of Locks and Dams 19 and 24	13.600	13.600
Major Rehabilitation of Locks and Dams 3, 11, and 27		21.700
Continuing Authorities (Section 1135)	13.500	25.000
Continuing Authorities (Section 206)	10.000	25.000
Operation and Maintenance:		
O&M of the Upper Mississippi Navigation System	167.733	231.759
General Investigations:		
Upper Mississippi and Illinois Waterway Navigation and Ecosystem Improvements PED		18.000
Upper Mississippi River Comprehensive Plan	.994	1.400
Research and Development	20.800	20.800
Stream Gaging (U.S. Geological Survey)	.600	.600

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:

CONSTRUCTION GENERAL

Environmental Management Program

For the past 17 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 has requested \$28 million for the EMP in fiscal year 2005. 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. Yet annual appropriations for the EMP have fallen short of the authorized funding levels for the past 8 years and the program is still suffering from the dramatic 40 percent cut it suffered in fiscal year 2003. Thus, the UMRBA strongly urges Congress to appropriate full funding of \$33.52 million for the EMP in fiscal year 2005.

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 administration's funding level of \$28 million, approximately \$17.7 million would be allocated to the planning, design, and construction of such habitat projects. In particular, this level of investment will support planning and design for 20 projects and construction work on 18 projects, bringing construction to completion on 5 of these projects. Approximately \$8.7 million would be devoted to the EMP Long Term Resource Monitoring program (LTRMP) under an EMP budget of \$28 million. This funding is critical to the future

viability of the EMP's monitoring component, which has suffered from funding shortfalls in recent years. Data collection related to water quality, sediment, fish, invertebrates, and vegetation has been reduced or suspended; bathymetric surveys have been eliminated; laboratory analysis has been cut back; data analyses and science planning has been curtailed; and land cover mapping has been postponed. Planning is currently underway to restructure and redesign the program to enhance its ability to meet increasing demands for information with decreasing resources. But it is essential that funding be increased in fiscal year 2005 to revive many of the essential functions that have been eliminated or deferred.

Meeting the ecological restoration and monitoring needs on the Upper Mississippi River with renewed commitment and enhanced investment is critical. Within the next few months, the Corps is expected to release the draft feasibility report from its Navigation Study on the Upper Mississippi River and Illinois Waterway System, including a recommended plan for improving both the 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 fully funded at \$33.52 million in fiscal year 2005.

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 18 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 2005 budget request for major rehabilitation work at Lock and Dam 19 (\$4.8 million) and Lock and Dam 24 (\$8.8 million). Lock and Dam 19, at Keokuk, Iowa, is in particular need of rehabilitation given the deterioration of its gates, resulting in dangerous conditions. 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 be completed in fiscal year 2005. In addition, fiscal year 2005 funding will support continued dam tainter gate rehabilitation.

The UMRBA also supports funding for major rehabilitation of Lock and Dam 3 (\$5 million), Lock and Dam 11 (\$10.9 million), and Locks 27 (\$5.8 million), none of which are currently funded in the administration's fiscal year 2005 budget request. In the case of Lock and Dam 11, the lack of funding is particularly problematic because work is already underway. Continued funding is needed in fiscal year 2005 to proceed with bulkhead construction and installation and lock repair. With regard to Lock and Dam 3, funds are needed in fiscal year 2005 to complete the reevaluation report and begin plans and specifications for correcting safety problems at this facility. 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 three earthen embankments connecting the gated dam to high ground on the Wisconsin side. Rehabilitation of Locks 27 is also critical, given its location at a critical juncture in the inland waterway system, through which traffic on the Mississippi, Illinois, and Missouri Rivers passes. The rehabilitation plan calls for rehabilitation of various structural, electrical, and mechanical components of this structure, which is over 50 years old.

Continuing Authorities (Section 1135 and 206)

The Corps of Engineers' Section 1135 and Section 206 continuing authorities provide an important tool for addressing ecosystem restoration needs, particularly in riverine environments. The three Corps Districts in the Upper Mississippi River Basin have undertaken many such projects over the past few years. While some projects are on the Mississippi River, others are located on tributaries, wetlands, and watersheds throughout the basin. There are currently more projects than can be supported with the limited funding proposed in fiscal year 2005. While the Section 1135 and Section 206 programs are each authorized to be funded at \$25 million annually, the President's fiscal year 2005 budget requests only \$13.5 million for Section 1135 and \$10.0 million for Section 206. Given that this relatively small amount is intended to support projects nationwide, it is not surprising that many projects in the 5 States of the Upper Mississippi River Basin remain unfunded. For example, in the Rock Island District alone, there are 5 new and 15 on-going Section 206 projects and 2 on-going Section 1135 projects that could utilize funding in fiscal year 2005. The total costs of the Section 206 projects in this one district far exceed the funding for Section 206 nationwide. Thus, the UMRBA supports funding for both

the Section 1135 and Section 206 programs at their fully authorized amount of \$25 million.

OPERATION AND MAINTENANCE

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 2005 budget totals approximately \$169 million for O&M of this river system, which includes \$111.410 million for the Mississippi River between Minneapolis and the Missouri River, \$21.236 million for the Mississippi River between the Missouri River and Ohio River, and \$35.087 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 evaluated other upper river pools, is a promising new approach for enhancing aquatic plant growth and overwintering conditions for fish, without adversely affecting navigation.

The UMRBA is pleased that the President's fiscal year 2005 funding request for O&M of the Upper Mississippi River System is above fiscal year 2004 appropriations for some of the river reaches. Unfortunately, the request is well below what is needed. In particular, there is a growing backlog of maintenance needs as a result of historically flat line budgets. In addition, as a result of unusual funding constraints in the St. Paul District in fiscal year 2004, that District is deferring contractor payments and all new contract awards.

Unmet needs include such items as major maintenance at Lock and Dam 5, land acquisition for dredged material disposal sites, replacement of dam gates and lift gates, repair of operating components, and lockwall resurfacing.

(In millions of dollars)

Upper Mississippi River System O&M Accounts	Fiscal Year 2004 Appropriations	Fiscal Year 2005 Request	Fiscal Year 2005 Full Capability
Mississippi River Between MO River and Minneapolis:			
St. Paul District (MVP)	36.056	51.030	61.340
Rock Island District (MVR)	45.000	42.473	53.287
St. Louis District (MVS)	18.000	17.907	25.916
Mississippi River Between Ohio and MO Rivers	18.099	21.236	31.793
Illinois Waterway:			
Rock Island District (MVR)	25.726	33.273	57.274
St. Louis District (MVS)	1.889	1.814	2.149

The UMRBA supports increased funding for O&M of the Upper Mississippi and Illinois River System to meet routine on-going operations and maintenance needs, and to begin to address the growing unfunded maintenance backlog. Full capability funding in fiscal year 2004 for all three Upper Mississippi River districts totals \$231.7 million.

GENERAL INVESTIGATIONS

Upper Mississippi River System Navigation and Ecosystem PED

The Upper Mississippi River and Illinois Waterway Navigation Study, which began in 1993 is nearing completion. The draft feasibility report is scheduled for release April 30, 2004 and the final Chief's Report is expected in November 2004. Since the study was restructured in 2001, it is designed to yield an integrated plan, incorporating both navigation improvements and ecosystem restoration. It has also been a truly collaborative process involving five Federal agencies, five States, and representatives from a broad spectrum of stakeholder groups. The recommendations resulting from this extraordinarily complex planning process promise to be the most

important investment for the future of the Upper Mississippi River that this region has had in decades.

The President's fiscal year 2005 budget request includes no funding for this critically important planning effort. While the feasibility study phase will be essentially complete by fiscal year 2005, there will be on-going planning and design needs. Thus, the UMRBA supports funding of \$18 million, which we understand is the Corps' capability, to advance the planning and initiate design. Such funding would enable significant progress to be made on both the navigation and ecosystem improvements, including planning and design work for switch boats, mooring cells, locks, system mitigation, and ecosystem restoration projects.

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. Since planning began in December 2001, funding shortfalls have been significant and the study has been suspended a number of times. In addition, only \$944,000 has been requested in fiscal year 2005. It is thus doubtful that the study will be completed within the 3-year time frame Congress directed when the study was first authorized in WRDA 1999, and later reaffirmed in WRDA 2000.

Although the assessment of alternative plans is underway, substantial work remains to be done, including completing that alternatives evaluation and conducting public meetings. Of particular interest to the States, is development and evaluation of an "Emergency Action Scenario" that will help the Corps and State agencies understand the implications of decisions they may be faced with making when fighting a flood such as the one in 1993. Such "what if" analysis, in combination with the evaluation of structural and nonstructural systemic flood damage reduction options, is critical. Thus, the UMRBA supports funding of \$1.4 million for the Upper Mississippi River Comprehensive Plan in fiscal year 2005.

Research and Development

The President's fiscal year 2005 budget request for Research and Development includes funding to support the Navigation Economic Technologies (NETS) research program. NETS is working to develop a standardized and defensible suite of economic tools to evaluate navigation improvements. The goal is to develop simulation models and data gathering techniques that are reasonably transparent and computationally accurate, yield nationally consistent results, and are acceptable to outside peer review. The need for such research has become increasingly obvious over the past few years, as the Corps has struggled to address the economic complexities and uncertainties associated with navigation improvements on the Upper Mississippi and Illinois Rivers. Significant advances in economic modeling have been made as part of that feasibility study. Yet additional work is needed to help inform future decisions. Thus, the UMRBA strongly supports funding for the NETS program, which is programmed for \$2.5 million in fiscal year 2005 under the Corps' Research and Development budget.

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 2004, the Corps' share of the cost of these gages is \$1.946 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 \$600,000 requested under General Investigations to support the Corps' share of non-project USGS stream gages, many of which are located in the five States of the Upper Mississippi River Basin. In fiscal year 2004, approximately \$108,000 was provided by these "General Coverage Funds" for gages in the St. Paul and Rock Island Districts.

PREPARED STATEMENT OF THE VENTURA PORT DISTRICT

The Ventura Port District respectfully requests that the Congress:

- Support the administration's request for \$2,910,000 to be included in the fiscal year 2005 Energy and Water Development Appropriations Bill for the U.S. Army Corps of Engineers maintenance dredging of the Ventura Harbor Federal channel and sand traps.
- Include \$300,000 in the fiscal year 2005 Energy and Water Development Appropriations Bill to complete a cost shared Feasibility Study to determine the ad-

visability of modifying the existing Federal navigation project at Ventura Harbor to include a sand bypass system.

BACKGROUND

Ventura Harbor, homeport to 1,500 vessels, is located along the Southern California coastline in the City of San Buenaventura, approximately 60 miles northwest of the City of Los Angeles. The harbor opened in 1963. Annual dredging of the harbor entrance area is usually necessary in order to assure a navigationally adequate channel. In 1968, the 90th Congress made the harbor a Federal project and committed the U.S. Army Corps of Engineers to provide for the maintenance of the entrance structures and the dredging of the entrance channel and sand traps.

The harbor presently generates more than \$40 million in gross receipts annually. That, of course, translates into thousands of both direct and indirect jobs. A significant portion of those jobs are associated with the commercial fishing industry (the harbor is consistently amongst the top ten commercial fishing ports in the United States), and with vessels serving the offshore oil industry. Additionally, the headquarters for the Channel Islands National Park is located within the harbor, and the commercial vessels transporting the nearly 100,000 visitors per year to and from the Park islands offshore, operate out of the harbor. All of the operations of the harbor, particularly those related to commercial fishing, the support boats for the oil industry, and the visitor transport vessels for the Channel Islands National Park are highly dependent upon a navigationally adequate entrance to the harbor.

OPERATIONS & MAINTENANCE NEEDS

Maintenance Dredging

It is estimated that \$2,910,000 will be required to perform routine maintenance dredging of the harbor's entrance channel and sand traps during fiscal year 2005. This dredging work is absolutely essential to the continued operation of the harbor.

STUDY NEEDS

It is estimated that \$300,000 will be required during fiscal year 2005 to complete a cost shared Feasibility Study to determine the advisability of modifying the existing Federal navigation project at Ventura Harbor to include a sand bypass system. Given the continuing need for maintenance dredging, it is appropriate to determine if a sand bypass system or other measures can accomplish the maintenance of the harbor in a manner that is more efficient and cost effective than the current contract dredging approach.

PREPARED STATEMENT OF THE PORT OF GARIBALDI

Mr. Chairman and members of the subcommittee, my name is William Schrieber. I am an elected Commissioner 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, 2003 and 2004, and we also appreciate the opportunity to present our views on fiscal year 2005 appropriations issues.

APPROPRIATIONS REQUEST

The Port of Garibaldi requests a \$2,600,000 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 continue 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, \$300,000 for Plans and Specifications in fiscal year 2003, and \$300,000 to begin construction of the revetment in fiscal year 2004. The final amount provided by Congress for fiscal year 2004 was \$400,000. These appropriations were made above the administration's budget requests for the project. The Major Maintenance Report was completed in December 2003. The total cost to build the revetment and 100 ft. caps at the North and South Jetty heads will be approximately \$16,700,000. These have been identified by the Portland District of the U.S. Army Corps of Engineers as among the minimum and necessary repairs to achieve a stable project. To undertake all necessary repairs would cost approximately \$41,300,000. The administration did not request funding for this project for fiscal year 2005.

REPORT ON THE TILLAMOOK BAY JETTY SYSTEM

There are serious problems with both jetties. The Corps' ongoing 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 crew members 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 2003, the Corps completed a Major Maintenance Report for the Tillamook North and South Jetties. The following paragraphs are included in the executive summary of the report.

"The north and south jetties at the entrance to Tillamook Bay have experienced damage to both jetty heads, trunks, and north jetty root. A recent apparent increase in the Pacific Ocean wave climate has exposed both jetties to more extreme storm waves, especially the south jetty which is more exposed to southwesterly storm events. In addition to the increases concern regarding jetty stability, there is concern that further recession of the jetty heads will contribute to already hazardous navigation conditions over the ebb tidal shoal or bar.

"Erosion of the shoreline along the north jetty is a major concern in terms of a potential breach at the jetty root. The jetty root has a smaller cross-section and the proximity of the deep channel (40 ft. in depth) to this section of jetty is of increasing concern. The increasingly severe shore erosion at the north jetty root appears to be related to the north jetty head recession.

"The north jetty has lost 384 ft. of jetty from the seaward end of its 5,700 ft. authorized length. The south jetty has lost 666 ft. from the seaward end of its 8,025 ft. authorized length. By 2006, at historical jetty head recession rates, the north jetty will be 480 ft. shorter than the authorized length. The south jetty will be 890 ft. shorter than the authorized length. The south jetty has never been repaired since its construction in 1969 to 1979 (25 to 35 years). The north jetty damage reach includes 1,050 ft. that has not been repaired since construction in 1918 (86 years)."

Background.—Since settlement in the 1800's, 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.

ECONOMIC CHARACTERISTICS

The following was also included in the Corps December 2003 Major Maintenance Report.

Entrance and Port Usage.—The Tillamook entrance is one of the most heavily used on the Oregon Coast and recent surveys indicate that the Port of Garibaldi is the third busiest recreational port in Oregon, behind the Port of Brookings and the Port of Umpqua. Total visitation to the Port of Garibaldi was 64,350 (Party Days) in 2002. Visitors in the area spent \$6,747,000 on trip related expenditures to the port. Sixty-nine percent of this spending was captured by local economy yielding \$4,666,000 in direct sales to tourism related firms. These sales generated \$1,847,000 in direct personal income and supported 118 direct jobs. With multiplier

effects, visitor spending resulted in \$6,446,000 total sales, \$2,543,000 in total personal income, and supported 143 jobs.

“Port Fleet Considerations.”—Total number of boats associated with the Port of Garibaldi was 619 in 2002. Boat owners in this area spent \$1,127,000 on boat related annual and fixed expenditures in the region. Thirty-nine percent of this spending was captured by local economy yielding \$434,000 in direct sales to related industries. These sales generated \$168,000 in direct personal income and supported 08 direct jobs. With multiplier effects, visitor spending resulted in \$589,000 total sales, \$223,000 in total personal income, and supported 11 jobs. The Port of Garibaldi is also an active commercial fishing port. Garibaldi’s total landing volume and value in the year 2000 was 1.7 million pounds and \$2.0 million. The share of landing volume for groundfish was 16 percent. There were a total of 1,548 fishing trips made by 92 different vessels in the year 2000. There were nine different processors, buyers, restaurants, etc. issuing more than \$10,000 in fish tickets.

“Marine Facilities.”—The Port of Garibaldi has over 300 slips available, with 60 slips available for vessels over 40 feet in length. The port also has 300 feet of dock available for transient vessels. The Coast Guard Tillamook Bay Station reports search and rescue cases annually. From 1995 to 2001, the station reported an average of 215 cases each year, with a high of 282 cases in 1999 and, a low of 152 cases in 2000.”

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 LOUISIANA GOVERNOR’S TASK FORCE ON MARITIME INDUSTRY

THE LOWER MISSISSIPPI RIVER AND CONNECTING WATERWAYS AND THE J. BENNETT JOHNSTON WATERWAY

Mississippi River Ship Channel, Gulf to Baton Rouge, LA.—Recommend the Corps be funded \$537,000 (Construction General) to perform required work on the salt-water intrusion Phase 1 mitigation plan and to prepare a report on deepening the river to its authorized depth of 55-foot depth.

Mississippi River, Baton Rouge to the Gulf—Maintenance Dredging.—The President’s Fiscal Year 2005 Budget is \$59,125,000 under O&M General. Recommend that the Corps be funded \$74,400,000 to construct foreshore rock dike, repair South Pass jetties, and to repair Southwest Pass pile dike and tie-in.

Mississippi River Gulf Outlet (MRGO), LA—Maintenance Dredging.—The President’s Fiscal Year 2005 Budget is \$13,004,000 under O&M General. Recommend that the Corps be funded \$38,400,000 for maintenance dredging and bank stabilization.

Inner Harbor Navigation Canal (IHNC) Lock, LA.—The President’s Fiscal Year 2005 Budget is \$10,000,000 in Construction General funds. Recommend that the Corps be funded \$24,000,000 to continue construction, design and mitigation for the IHNC Lock replacement.

Mississippi River Outlets at Venice, LA.—The President’s Fiscal Year 2005 Budget is \$424,000 under O&M General. Recommend that the Corps be funded \$3,700,000 to perform critical maintenance dredging and to repair jetties.

Bayou Sorrel Lock, LA.—The President’s Fiscal Year 2005 Budget is \$550,000 under General Investigation Studies 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.

Gulf Intracoastal Waterway, LA and TX.—The President’s Fiscal Year 2005 Budget is \$17,476,000 under O&M General. Recommend that the Corps be funded \$27,300,000 to perform critical maintenance at the navigation locks.

MRGO Reevaluation Study, LA.—The President’s Fiscal Year 2005 Budget is \$225,000 (General Investigation) to initiate an ecosystem restoration study of the MRGO.

J. Bennett Johnston Waterway, Mississippi River to Shreveport, LA.—The President’s Fiscal Year 2005 Budget is \$4,000,000 (Construction General) and \$10,600,000 (O&M General). Recommend that the Corps be funded \$20,000,000 (Construction General) and \$18,000,000 (O&M, General) to initiate new work and complete work already underway.

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 and the J. Bennett Johnston Waterway and the maritime interests related thereto of the State of Louisiana relative to congressional appropriations for fiscal year 2005.

The U.S. Army Corps of Engineers reports that in 2002 a total of 421.1 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 20.5 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 waterborne commerce on the lower Mississippi River. The high level of barge traffic on the river is indicated by the passage of more than 293,000 barges through the Port of New Orleans annually. In 2002, 1,967 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 (40.5 percent); Asia (28.7 percent); Europe (20 percent); Africa (9.4 percent) and North America (1.4 percent). During the same year, 5,448 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 2002, the region's ports and port facilities handled 227.5 million tons of foreign waterborne commerce. Valued at \$39.2 billion, this cargo accounted for 18.1 percent of the Nation's international waterborne trade and 27 percent of all U.S. exports. Bulk cargo, primarily consisting of tremendous grain and animal feed exports and petroleum imports, made up 88.3 percent of this volume. Approximately 50.2 million tons of grain from 17 States, representing 62.4 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 91.2 million short tons of petroleum and petroleum products, 15.9 percent of U.S. waterborne imports of petroleum products.

In 2002, public and private facilities located within the jurisdiction of the Board of Commissioners of the Port of New Orleans, the fifth largest port in the United States, handled a total of 85 million tons of international and domestic cargo. International general cargo totaled 9.6 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 2005 to complete construction of improve-

ments 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 salt-water 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 216.4 million tons of foreign and domestic cargo in 2002, and the Port of Baton Rouge, the Nation's ninth largest port with 60.6 million tons of foreign and domestic cargo in 2002, 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 2005 Budget is \$59,125,000 under O&M General. We, however, strongly recommend that the Corps be funded \$74,400,000 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 container and cold storage facilities and generates significant economic impact for the region. In 2002, 374 general cargo vessels calling on the Port's MRGO terminals accounted for 31.5 percent of the general cargo tonnage handled over public facilities at the Port and 70 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 2005 Budget is \$13,004,000 under O&M General. We, however, strongly recommend that the Corps be funded \$38,400,000 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. We strongly recommend that the Corps 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 1 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 2005 Budget of \$10,000,000 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 \$24,000,000 to 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 2002, these channels accommodated cargo movements exceeding 2.6 million tons. In addition to routine traffic, shallow draft vessels use Baptiste Colette Bayou as an alternate route between the MRGO, GIWW and the Mississippi River. The President's Fiscal Year 2005 Budget is \$424,000 under O&M General. We, however, strongly recommend that the Corps be funded \$3,700,000 to perform critical maintenance dredging.

More than 72.4 million tons of cargo transverse the GIWW in the New Orleans District annually. The President's Fiscal Year 2005 Budget is \$17,476,000 under O&M General. We, however, strongly recommend that the Corps be funded \$27,300,000 to perform critical maintenance at the navigation locks.

The President's Fiscal Year 2005 Budget for the Bayou Sorrel Lock, LA project is \$500,000 in GI funds. To assure the efficient flow of commerce on the GIWW, we urge that the Corps be funded \$500,000 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 \$1,000,000 in GI funds to advance the completion of the feasibility phase of the study to replace Calcasieu Lock on the GIWW.

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 2005 Budget is \$4,000,000 (Construction General) and \$10,600,000 (O&M General). We, however, strongly recommend that the Corps be funded \$20,000,000 (Construction General) and \$18,100,000 (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 that 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 also 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.

Supporting statements from Mr. Gary P. LaGrange, Executive Director of the Port of New Orleans; Mr. Joseph Accardo, Jr., Executive Director of the Port of South Louisiana; Mr. Roger Richard, Executive Director of the Greater Baton Rouge Port Commission; Mr. Channing Hayden, President of the Steamship Association of Louisiana; Capt. A. J. Gibbs, President of the Crescent River Port Pilots Association and Capt. Michael R. Lorino, Jr., President, Associated Bar Pilots are attached. Please make these statements along with my statement part of the record. Supplemental graphics relating to my statement have been furnished separately for staff background use. Thank you for the opportunity to comment to the subcommittee on these vital projects.

PRESIDENT'S BUDGET REQUEST & 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) .....	.....	537
Mississippi River, Baton Rouge to the Gulf, Maintenance Dredging & Stabilization (O&M General)	59,125	74,400
Mississippi River-Gulf Outlet (MR-GO), LA (O&M General)	13,004	38,400
Inner Harbor Navigation Canal Lock, LA (Construction General)	10,000	24,000
Mississippi River Outlets at Venice, LA (O&M General)	424	3,700
Bayou Sorrel Lock, LA (GI Funds)	550	550
Gulf Intracoastal Waterway LA & TX (O&M General)	17,476	27,300
MRGO Reevaluation Study, LA (General Investigation)	225	225
J. Bennett Johnston Waterway (Construction General)	4,000	20,000
J. Bennett Johnston Waterway (O&M General)	10,600	18,100
TOTAL	115,404	207,212

PREPARED STATEMENT OF THE PORT SAN LUIS HARBOR DISTRICT

On December 22, 2003, a magnitude 6.5 earthquake jolted the central California coast. The epicenter was about 40 miles northeast of the Port San Luis Harbor federally-owned breakwater. This earthquake caused significant damage to the structure, which prior to that date, had been in good condition. Based on its preliminary survey, the U.S. Army Corps of Engineers (USACE) estimated that repairs will cost \$4 million. USACE owns and is responsible for maintaining this breakwater. President Bush declared our region a disaster area (DR 1505) on January 13, 2004; however, FEMA does not provide financial assistance to other Federal agencies.

HISTORY

Construction of a breakwater at Port San Luis was authorized by Congress in 1888 and USACE began construction in 1893. The Federal breakwater was completed in 1913. It was destroyed by severe storms in 1923, and redesigned and rebuilt to the current specifications in 1927.

USACE has repaired damages to the breakwater three times:

—In 1935 after storms from earlier years.

—In 1984 after severe 1982 El Niño storms that also sunk 27 vessels and destroyed 2 piers.

—In 1992 after 1991 El Niño storms. (Port San Luis Harbor District was the local sponsor and contributed in-kind services for maintenance and repair.)

NATIONAL SIGNIFICANCE

A small local government, Port San Luis Harbor District has limited funds. We have made the breakwater repair project our highest priority because of its significant regional, State, and national importance for the following reasons.

- Port San Luis Harbor is the nearest safe harbor of refuge to Point Conception, the “Cape Horn of the Pacific.”
- Port San Luis Harbor is a U.S. Customs and Border Protection (CBP), Port of Entry station. A Port of Entry is a designated place where a CBP officer is authorized to accept entries of merchandise, collect duties, and enforce the various provisions of the customs and navigation laws (19 CFR 101.1).
- Port San Luis Harbor is the closest port to the Diablo Canyon Nuclear Power Plant. The land entrance to the power plant is at Port San Luis; our Security personnel are on the frontline monitoring threats to homeland security. The harbor is used to receive and transport heavy equipment for the nuclear power plant. Two 120-ton rotors are scheduled for delivery through Port San Luis in 2006 and 2008. Calm water is essential to offload this equipment. There is also the matter of transferring spent nuclear fuel from the power plant to a Federal depository sometime in the future. As currently proposed by the Department of Energy (DOE), this high level nuclear waste will either be barged out of Port San Luis or shipped by road. Either way, without the breakwater, access to the harbor by road or ship will be severely restricted.
- Port San Luis is home to the California Polytechnic State University’s Center for Coastal Marine Science (CCMS) Pier located on the former Unocal Oil Pier. This Pier Structure is valued at \$23 million. Agencies currently providing funding to the CCMS are: California Department of Health Services, National Air Space Administration, National Oceanic and Atmospheric Administration, National Science Foundation, Office of Naval Research; Naval Surface Warfare Center, The National Oceanographic Partnership Program, California Regional Water Quality Control Board, National Estuary Program/EPA, and Unocal Corporation.
- In 2000 the California legislature designated Port San Luis Harbor one of several ports along the California coast as a harbor of safe refuge. This legislation recognizes the critical role our harbor plays in affording a safety zone for commercial and industrial vessels transiting the California coast. U.S. Coast Guard vessels, scientific research vessels, oil-industry related vessels and other large vessels stop at the Port, especially during storms, to find calm water protected by the Federal breakwater.
- Port San Luis is one of the primary facilities on the central California coast used by fiber optic cable ships to install and repair transpacific fiber optic cables. Several cable landings are in waters near the port and are serviced by large cable-laying ships. This international communication support facility (harbor) is critical to the national security and global commerce. A safe harbor to resupply and moor cable-laying ships and associated watercraft is critical.
- The Port is home to 240 commercial and recreational fishing vessels that contribute to the economy and job markets in central California. The supporting landside businesses are dependent on the local fleet to generate jobs and revenue producing goods and services—including ships chandleries, vessel haul-out and repair facilities, fueling stations, seafood buying stations, and ancillary services.

For these reasons, we request a congressional “add” of \$4 million to the fiscal year 2005 Budget to repair the earthquake damage to the Federal breakwater.

PREPARED STATEMENT OF THE COOSA-ALABAMA RIVER IMPROVEMENT ASSOCIATION, INC.

Mr. Chairman and distinguished committee members, I request the President’s fiscal year 2005 Budget be adjusted to reflect appropriations to U.S. Army Corps of Engineers civil works projects on the Alabama River as follows:

	Amount
Alabama-Coosa	\$4,549,000 (add of \$4,000,000).
Millers Ferry L&D	4,863,000 (add of \$320,000).

	Amount
Robert F. Henry L&D	4,890,000 (add of \$300,000).

I make these requests as President of an Association formed in 1890 to promote commercial navigation on the Coosa and Alabama Rivers. Our members are the cities, counties, businesses, and individuals from Rome, Georgia to Mobile, Alabama. We value our inland waterways and are very distressed that the President's proposed cuts on our projects are being done with no thought as to consequences to the citizens of this river basin.

Alabama-Coosa.—The President's Budget proposal for fiscal year 2005 eliminates funding for dredging the Alabama River navigation channel as well as for maintaining the lock at Claiborne Dam. Not funding these projects will close the Alabama River navigation channel, sever the only waterway link between the capital city of Montgomery and the Port of Mobile, and isolate three-fourths of the river basin from the Gulf of Mexico.

Severing the channel will have major negative economic effects in central Alabama, an area bustling with expansion of new industries and subsidiaries. Hyundai Motor Company located its first American-based automobile manufacturing plant, a \$1 billion investment, in the Montgomery area because of the available infrastructure, including the waterway. Hyundai has plans this calendar year and in 2005 to move several pieces of outsized equipment, weighing up to 125,000 pounds each and part of a \$20 million stamping press, to its plant via the Alabama River, the only transportation artery capable of safely moving equipment of that size. The channel is essential to Hyundai operations.

The Gulf Logistics and Projects Company of Houston, Texas, which will be a major transporter of raw materials to Hyundai, indicates that closing the navigation channel will cause "painful economic distress if the barge delivery system is denied to foreign manufactures (sic) trying to relocate their factories into the United States, near Montgomery, Alabama . . . Without the Alabama River, quantity raw materials movements may become too expensive and production be curtailed." This is a strong statement from a Korean firm planning to establish an office in Mobile just to support Hyundai, and I believe is a compelling argument to keep the navigation channel fully operational.

Another major industry that will be hard hit is Alabama River Pulp Company of Perdue Hill, Alabama, a \$1.4 billion investment and one of the largest paper manufacturing plants in the world. Alabama River Pulp receives fuel oil via barge. If the channel closes, that fuel oil will have to be trucked in at an additional annual cost of \$1.5 million while putting 2500 additional trucks of fuel oil on Alabama's highways. Why would we want to do that?

Closing Claiborne Lock has other consequences for ARP, which is located only about three miles downstream of Claiborne Dam and is heavily reliant on predictable and controlled flows and river levels. Not funding the lock operation means the personnel operating that lock and who also control the dam flow control gates would be cut, imperiling the flow control procedures on which ARP relies to provide cooling water to its plant. ARP strongly objects to any cuts that jeopardize that flow management.

Closing the channel is a direct threat to some sand and gravel companies. Two companies that currently move approximately 100,000 tons on the Alabama annually have the resources to move over 300,000 tons, but are stymied because reduced dredging the past 2 years has allowed the river to silt in, causing severe navigation safety problems. Couch Ready Mix USA, which has a \$5 million investment on the river near Montgomery, has stated in writing that, if the channel were fully maintained, it alone has an annual capacity of over 300,000 tons to move on the river to the Gulf of Mexico.

One of the major benefits of barge transportation is its contribution to traffic and pollution safety. A May 2001 Latin American Trade and Transportation Study, sponsored by the Southeastern Transportation Alliance, predicts that imports into the Gulf of Mexico from Latin America will triple by 2020. It is reasonable to assume that the Port of Mobile will get its fair share of that increased traffic, much of which will be containers. Those commodities will have to move out of Mobile by rail, road, or waterway. Rail is limited in its capacity to absorb these increases. Truck congestion on the highway system leading out of Mobile will be intolerable, as should be the additional pollution. (Per ton-mile, barges emit only 10 percent of emissions produced by trucks and 25 percent of that produced by rail.) It makes sense, from economic, environmental, and safety views, to move some of that cargo, including containers, onto the waterways, including the Alabama River, an option not available if the waterway is closed.

The proposal to close Claiborne Lock alone has dire consequences beyond the effect on commercial navigation. The Alabama River is the only waterway connecting the capital city of Montgomery to the Gulf of Mexico. Severing the channel will stop ever-increasing recreational traffic from Montgomery to the Gulf. Eighty percent of the vessels locking through Claiborne are recreational craft. There is a strong move within the basin to develop a system of marinas to support recreational vessels from bass boats to 80-foot cruisers. Wilcox County, one of the least developed and highest unemployment (16.4 percent) counties in the State, is planning to construct a full-service marina and lodging facility on the Alabama to attract and serve recreational craft of all sizes, a facility that will provide jobs. Closing the navigation channel will kill that project as well as projected revenue for this depressed area.

Millers Ferry Lock and Dam and Robert F. Henry Lock and Dam.—The President's Budget also eliminates funding to maintain several of the Corps' recreational areas along the Alabama River. Over 3 million people visited these sites last year and spent over \$60 million within 30 miles of the facilities, 66 percent of which was a direct input into the local economy. With proposed cuts in maintenance of \$320,000 at Millers Ferry and \$300,000 at Robert F. Henry, the Mobile District will be forced to scale back maintenance at all sites, close three of the six campgrounds 6 months out of the year, reassign park rangers, and drop contracted maintenance.

Without maintenance, these facilities will deteriorate. To "save" \$620,000, the administration is willing to sacrifice a strong economic multiplier in an economically-depressed area of the country. This kind of "saving" doesn't make economic sense.

Attached is a list of businesses, individuals, and local and State government agencies expressing concern about these proposed cuts in the Alabama River civil works projects. To a person, these citizens view the proposed cuts as "devastating for industrial development in the State of Alabama." Any "savings" from the proposed cuts will be a Pyrrhic victory, dwarfed by staggering losses to the State of Alabama.

In summary, the President's Budget proposal for fiscal year 2005 will be a major economic blow to Central Alabama. For the appearance of "savings", the administration is willing to eliminate an important transportation asset for the State of Alabama and put in jeopardy businesses sorely needed in an economically depressed area with unemployment up to 15 percent. I request funding be placed into the fiscal year 2005 Energy and Water Appropriations Act to allow the Corps of Engineers to maintain the authorized navigation channel on the Alabama River and to keep the recreation areas open year around for the benefit of our citizens.

LETTERS SUPPORTING CARIA STATEMENT—MARCH, 2004

The Honorable Otha Lee Biggs	Monroe County Commission	Monroeville, AL.
The Honorable Jim Byard	Mayor, City of Prattville	Prattville, AL.
Mr. F. Slaton Crawford	Dir, Wilcox County C of C	Camden, AL.
Mr. Elton N. Dean	Montgomery County Commission	Montgomery, AL.
Mr. Ken Fairly	Alabama River Pulp Company	Monroeville, AL.
The Honorable Anne Farish	Mayor, City of Monroeville	Monroeville, AL.
Mr. Trey Glenn	Alabama Office of Water Resources	Montgomery, AL.
The Honorable Sue Glidewell	Mayor, City of Rainbow City	Rainbow City, AL.
Mr. Lynn A. Gowan	Montgomery County Commission	Montgomery, AL.
Mr. Robert F. Henry, Jr.	Robert F. Henry Tile Co.	Montgomery, AL.
Mr. Slade Hooks, Jr.	Waterways Towing & Offshore Svcs	Mobile, AL.
The Honorable John W. Jones, Jr.	Dallas County Probate Judge	Selma, AL.
Mr. Wm. F. Joseph, Jr.	Montgomery County Commission	Montgomery, AL.
Captain Jeong Dae Kim	Gulf Logistics & Projects	Houston, TX.
Mr. James Lyons	Alabama State Docks	Mobile, AL.
Ms. Ellen McNair	Montgomery Area C of C	Montgomery, AL.
Mr. Donald L. Mims	Montgomery County Commission	Montgomery, AL.
The Honorable James Perkins	Mayor, City of Selma	Selma, AL.
Mr. Phillip A. Sanguinetti	The Anniston Star	Anniston, AL.
Mr. Steven D. Shaw	Couch Ready-Mix USA	Dothan, AL.
Ms. Sandy Smith	Monroeville Area C of C	Monroeville, AL.
Mr. J. Craig Stepan	Warrior & Gulf Navigation	Mobile, AL.
Mrs. Anne Henry Tidmore .....	.....	Montgomery, AL.
Mr. Wayne Vardaman	Selma & Dallas County Cntr. for Co.	Selma, AL.
Mr. Jiles Williams, Jr.	Montgomery County Commission	Montgomery, AL.
Mr. Sam H. Wingard	Montgomery County Commission	Montgomery, AL.

PREPARED STATEMENT OF THE BOARD OF MISSISSIPPI LEVEE COMMISSIONERS

Mr. Chairman and members of the committee, 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 seven 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 provinces 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 vendors 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 \$450 million for fiscal year 2005 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.

Thanks to the additional funding over and above the administration's budget that has been provided by the Congress over the last several years, work on the Mainline Mississippi River Levee Enlargement Project is continuing. This funding has resulted in having 7.6 miles of work completed and returned to the Levee Board for maintenance, and 24.4 miles are currently under contract. Right of way is being acquired on the next 3.4 miles with the contract being scheduled for award in September of this year. This will result in over half of the deficient 69 miles in our District being completed or under contract. We are requesting \$54.8 million for construction on the Mainline Mississippi River Levees in the Mississippi Valley Division which will allow the Vicksburg and Memphis districts to keep existing contracts on schedule and award contracts to avoid any unnecessary delays in completing this vital project. We are all well aware that the Valley some day will have to endure a Project Flood, we just don't know when. We must be prepared.

Three projects in Mississippi are on the list included in the administration's budget targeted for cancellation by the Office of Management and Budget. These are all projects authorized and funded so wisely by the Congress. The administration's proposal includes language to return unobligated funds to the Treasury. This action is especially difficult to understand during a time when our Nation needs an economic boost. All of these projects are encompassed in the footprint of the Delta Regional Authority, an area recognized by the Congress as requiring special economic assistance to keep pace with the rest of our great Nation. We can not lose sight of the fact that all of these projects are required to return more than a dollar in benefits for each dollar spent. No project authorized and funded by the Congress should be indiscriminately terminated without the benefit of having the opportunity to complete with the study process and subsequent construction after complying with the Corps Policy and Guidelines.

One of the projects on this list will provide benefits to parts of six counties in the south part of the Mississippi Delta who continue to patiently wait for the completion of the Yazoo Backwater Project. This work authorized by the Congress to provide protection from higher stages on the Mississippi River resulting from changes made to the Mississippi River and Tributaries Project, must safely pass flood water from 41 percent of the continental United States. Also, the same change in the flow line of the Mississippi River that is requiring the Enlargement of the Mainline Mississippi River Levee will also increase stages in the South Delta. The Corps and

EPA have made an extraordinary effort to resolve differences in wetland impacts resulting from the construction of the Corps recommended plan for this project. This plan has received the support of all six county Boards of Supervisors in the project area. We are requesting this project be funded by the Congress in the amount of \$12 million. These funds will allow the Corps to begin acquisition of the reforestation easements and initiate the award of the pump supply contract.

Another project on the administration's hit list is the Big Sunflower River Maintenance Project. The first item of work has been completed and right-of-way has been acquired for the next item of work. Our request for \$2.139 million will allow right-of-way acquisition to continue and for the award of the first dredging contract. The residents in South Washington County continue to suffer damages from flooding while they continue to wait for this maintenance project to reach their area.

The third project in Mississippi targeted by the administration for cancellation is the Delta Headwaters Project, formerly the Demonstration Erosion Control Project. Work carried out as part of this project has proven effective in reducing sediments to downstream channels. To discontinue this project will only increase sediment in downstream channels, reducing the level of protection to the citizens of the Delta and increasing required maintenance. We are requesting \$25 million to continue this project.

The Upper Yazoo Project is critical to the Delta. The Corps of Engineers operates 4 major flood control reservoirs on the bluff hills overlooking the Mississippi Delta. These reservoirs hold back heavy spring rains and must have adequate channel capacity to pass this excess runoff during the summer and fall months. Without completion of the Upper Yazoo Project, the Corps is forced to hold flood water from the previous spring, thereby reducing the ability to provide protection from the current year's flood water. The administration's budget of \$3.85 million will require the Vicksburg District to suspend construction of three ongoing contracts. We urge the Congress to provide additional funds to increase the budget amount to \$20 million allowing construction to continue and the award of additional channel items that will extend construction upstream to Glendora, Mississippi.

Maintenance of completed works can not be over looked. The four flood control reservoirs over looking the Delta have been in place for 50 years and have functioned as designed. Required maintenance must be performed to avoid any possibility of failure during a flood event. The recent dam failure in south Mississippi less than 2 weeks ago can only magnify the need to adequately maintain our infrastructure. We are asking for \$12.9 million for Arkabutla Lake, \$19.322 million for Sardis Lake, \$13.679 million for Enid Lake, and \$10.101 million for Grenada Lake. Additional funding will be used to replace rip rap at all 4 reservoirs, repair the spillways at Arkabutla and Sardis, and upgrade other infrastructure around all the lakes.

We are requesting \$14.915 million for Maintenance of the Mainline Mississippi River Levees which will provide for repair of levee slides, slope repair, and repair of the gravel maintenance roadway which is so vital to access during high water.

Other Mississippi projects that require additional funding to keep on schedule include:

[In thousands of dollars]

Project	Amount
Big Sunflower River (Upper Steele Bayou)	5,000
Yazoo Basin Reformulation Unit	450
Yazoo Basin Main Stem	25
Yazoo Backwater (Greentree Reservoirs)	300

I have reviewed a great deal of information regarding the needs of providing flood protection to our area. Another major feature of the Mississippi River & Tributaries Project relates to navigation interest along the Mississippi River. Several of our ports have been informed that the President's budget does not include funding for Critical Harbor Dredging necessary to keep these harbors opened for navigation. Our port commissioners have been notified that lack of dredging will cause these ports to be shut down and be a hazard to navigation. This will impact the movement of over 4.5 million tons of cargo being shipped on our waterways annually from these ports. This equates to an additional 180,000 truck loads of products on our highways. It is imperative that funding be made available for Critical Harbor Dredging to allow continued operation of these facilities, which are key features to the economic growth of the region.

As members of the Congress representing the citizens of our Nation who live with the Mississippi River everyday, you clearly understand both the benefits provided

by this resource, and the destructive force that must be controlled during a flood. On behalf of the Mississippi Levee Board, I can not express enough, our appreciation for your efforts in providing adequate funding over the last several years that has allowed construction to continue on our much needed projects.

PREPARED STATEMENT OF THE BLUE VALLEY ASSOCIATION

The Blue Valley Association has 164 members representing thousands of employees in the Blue Valley industrial area. These high paying jobs have been put at risk from past flooding in the valley. Since 1920 the association has been dedicated to improving our industrial area and maintaining jobs. Continued funding of the Blue River Project is essential to this goal.

The project, which began in 1983, is located along the Blue River from its mouth at the Missouri River continuing approximately 12 miles upstream to 63rd Street, running through an industrial area of Kansas City, which is a long-standing business district employing 12,000 people, and containing many residential neighborhoods.

The progress made to date has provided significant benefits to those businesses downstream. But much work remains. Delays in funding will increase the risk of flooding as rapid development of the watershed in the State of Kansas increases the run off. Increased flooding has forced many businesses to abandon the valley and relocate to new "Greenfields". The project's completion date has already been delayed from 1998 to 2008.

This is an economically sound project with a benefit to cost ratio of 3 to 1. Therefore, we urge you to provide the \$8,000,000 in funding needed to continue this project.

PREPARED STATEMENT OF THE MO-ARK ASSOCIATION

Mr. Chairman, the Mo-Ark Association welcomes this opportunity to provide written testimony to the Subcommittee on Energy and Water Development regarding appropriations for fiscal year 2005 and requests that this written testimony be included in the formal hearing record.

The Mo-Ark Association is a long-standing organization that promotes beneficial use of water and land related resources in the Missouri and portions of the Arkansas River Basins, primarily within the States of Kansas and Missouri. We have advocated for flood damage reduction projects in our region since severe flooding ravaged the Midwest in 1951.

The Mo-Ark Association requests the following General Investigation and Construction General Funding for Corps of Engineers' Water Resource projects underway in our region. Our fiscal year 2005 Federal appropriations request for these projects is presented in the following table, together with the activity to be performed with those funds by the Corps of Engineers. The projects with the highest priority are shown in cap type.

Project	Fiscal Year 2005 Request	Activity
BLUE RIVER CHANNEL	\$8,000,000	CONTINUE CONSTRUCTION.
TURKEY CREEK BASIN	2,500,000	CONTINUE CONSTRUCTION.
Brush Creek Basin	200,000	Complete Study Effort.
BLUE RIVER BASIN	4,000,000	CONTINUE CONSTRUCTION.
SWOPE PARK INDUSTRIAL AREA	600,000	COMPLETE DESIGN.
Kansas Citys (7 Levees)	650,000	Continue Feasibility Study.
Upper Turkey Creek	500,000	Continue Feasibility.
St. Joseph Levee	250,000	Complete Feasibility.
Topeka Levee	100,000	Complete Feasibility.
Jefferson City Levee L-142	6,200,000	Begin Construction.
RIVERSIDE LEEVE L-385	12,000,000	COMPLETE CONSTRUCTION.
Missouri River Mitigation	20,000,000	Design & Construction.
Missouri River Bank Stabilization & Navigation Support	5,000,000	Rehabilitation & Construction.
MISSOURI RIVER CHANNEL DEGRADATION STUDY	500,000	BEGIN STUDY.

Mo-Ark also requests that the several key programs which provide Federal assistance for water related projects continue to be made available to local communities and that they are supported with annual appropriations. Among these: Small Flood Control Authority, Section 205 of the 1948 Flood Control Act as amended; Flood

Plain Management Services, Section 206 of the 1960 Flood Control Act; Planning Assistance to States, Public Law 93-251; and Emergency Bank Stabilization, Section 14 of the 1946 Flood Control Act as amended. Communities in our region have made use of these programs in the past and will continue to seek out beneficial uses for them in the future.

PREPARED STATEMENT OF THE KANSAS CITY INDUSTRIAL COUNCIL

The Kansas City Industrial Council (KCIC) supports the U.S. Army Corps of Engineers and local sponsor, Kansas City, Missouri, in the completion of the Feasibility Report on the Swope Park Industrial Area. We encourage the approval of this report as urgently as possible.

The safety of many lives is directly affected by the Blue River as experienced in the May 15, 1990, flooding in the Swope Park Industrial Park. The Feasibility Report accurately defines this unique area by having only one way to enter and exit, land being surrounded by river and railroad tracks. This report also accurately depicts that the business owners and managers of Swope Park Industrial Park have continued to maintain property and employment while keeping flood protection the number one priority for employee safety.

PREPARED STATEMENT OF DECO COMPANIES, INC.

DECO Companies, Inc. has 90 employees currently in the Blue River Valley. Our affiliate companies have ownership of over a million square feet of industrial space leased to small "Started Businesses". To keep these businesses, valuable property and employees safe from floods continued funding of the Blue River project is essential.

The project, which began in 1983, is located along the Blue River from its mouth at the Missouri River continuing approximately 12 miles upstream to 63rd Street, running through an industrial area of Kansas City, which is a long-standing business district employing 12,000 people, and containing many residential neighborhoods.

The progress made to date has provided significant benefits to those businesses downstream. But much work remains. Delays in funding will increase the risk of flooding as rapid development of the watershed in the State of Kansas increases the run off. Increased flooding has forced many businesses to abandon the valley and relocate to new "Greenfields". The project's completion date has already been delayed from 1998 to 2008.

This is an economically sound project with a benefit to cost ratio of 3 to 1. Therefore, we urge you to provide the \$8,000,000 in funding needed to continue this project.

PREPARED STATEMENT OF VANCE BROTHERS INC.

On behalf of the 200 employees of Vance Brothers Inc., I am requesting that you provide the funding necessary to continue the Blue River Channel Project.

In 1993 and again in 1995 the water was so high that we had to initiate our Emergency Flood Plan. Besides costing thousands of dollars, it put employees out of work for several days.

Because of the residential and commercial development of the upper Blue River basin in the State of Kansas, along with their paved parking lots and new storm sewer systems, we had up to 8 feet of water in our plant in 1990.

Increased flooding has forced many businesses to abandon the valley. Delays in funding will increase the risk of flooding as rapid development of the watershed in the State of Kansas increases the run off. The project's completion date has already been delayed from 1998 to 2008.

This project will benefit the workers in our area creating good paying jobs.

This is an economically sound project with a benefit to cost ratio of 3 to 1. Therefore, we urge you to provide the \$8,000,000 in funding needed to continue this project.

PREPARED STATEMENT OF WAREHOUSE ONE, INC.

On behalf of the 55 associates of Warehouse One, Inc., and the thousands of other Kansas City workers and residents in the Blue Valley, I am requesting that you pro-

vide the \$8,000,000 in funding necessary to continue the Blue River Channel Project.

The Blue River flows through the historical and industrial heart of Kansas City with its lower stretch in the Enterprise Zone. Increased flooding from upstream development has forced many businesses to abandon the valley at a cost of thousands of jobs and lowered property values. The Army Corps of Engineers' revised completion date has now been extended from 1998 to 2008. This delay will only cause more companies and residents to leave our neighborhoods.

In areas where the project has been completed, redevelopment is significant. Hundreds of millions of dollars of public and private money have been invested to reclaim abandoned properties providing jobs, homes, and tax dollars.

The Blue River Channel Project, with a benefit to cost ratio of 3 to 1 has already proven to be economically sound. I urge you to provide the \$8,000,000 in funding to continue the project.

PREPARED STATEMENT OF THE BI-STATE TURKEY CREEK ASSOCIATION

We received a NEW START APPROPRIATION in the Fiscal Year 2004 Appropriations Bill and construction is underway.

We MUST have funds to continue this project which affects hundreds of privately held company and thousands of employees.

Major Interstate Highways 35 and 635 flood along with U.S. Highways 69 and 169. The Main Lines of the Burlington-Northern and Santa-Fe railroads flood.

We request that \$2,500,000 be appropriated for fiscal year 2005 for continued construction.

PREPARED STATEMENT OF THE LIVERS BRONZE CO.

Livers Bronze Co. moved into Swope Industrial in 1999. We purchased two buildings that house our lifetime investments and the futures for many families. Coming into this we needed FEMA flood insurance but also knew there was a project under way to give us flood protection which at some point would eliminate this costly insurance. We have an active association and go to regular meetings with the U.S. Corps of Engineers and our sponsor, Kansas City, MO. At this time we have completed both Reconnaissance and Feasibility studies.

The Blue River has a history of flooding in Kansas City. Downstream of 63rd Street the work has nearly been finished; the Bannister project at 95th Street has completed and the Dodson project at 85th Street has just started. This leaves the Swope project at 75th Street in between, not started and could possibly put us at higher risk during high water events. The Swope project is truly the last piece of the Blue River puzzle with regard to the flood protection of industrial sites along the Blue in Kansas City.

We request that the \$600,000 be appropriated to complete the design phase of the Blue River, Swope Industrial project. The ongoing expenses and threats of future floods in our park are detrimental to the different industries in our park. Without your help, our businesses and the lives of our employees and associates will always have the threats of flooding in our future. Please help us complete this last segment of the Blue River project.

PREPARED STATEMENT OF THE SALVAJOR COMPANY

The Swope Park Industrial Association member companies have collectively worked for flood protection for many years, even prior to our flooding in 1990. We have met many times with our sponsor, Kansas City, MO, and the U.S. Army Corps of Engineers, and have completed both Reconnaissance and Feasibility studies.

Our location is separate of the Blue River Channel project that is from the mouth of the Blue River upstream to 63rd Street. As you know there are two other projects on the Blue River, the completed Bannister project at 95th Street and the newly under construction, Dodson project at 85th Street. Our location on 75th Street is between Bannister/Dodson and Blue River Channel projects. This location, between two active projects, puts us at higher risk than any other industrial area on the Blue River during high water events. Our project, when constructed, will complete the protection of industrial sites on the Blue River—the last piece of the puzzle.

Even though we continue to work for the protection of our employees and the preservation of our business, we are now mostly concerned about continued funding of our project. We are a small project, and the only industrial area on the Blue River

with the risk of not realizing construction since our project is still in design phase, a phase that is in most risk of not being funded for the upcoming year.

Without funding, Swope Park Industrial area companies will definitely lose investments in property and jobs that were created here long before we were designated flood plains. We realize we are only one of many projects that need funding, but our project is unique in our location, our size, and we are the key to completion of a great program that has already shown positive results in retaining business and reducing blight in the completed areas. We request that the \$600,000 be appropriated to complete the design phase of the Blue River; Swope Park Industrial project.

PREPARED STATEMENT OF THE CLAY AND BAILEY MANUFACTURING COMPANY

On behalf of the 60 employees of Clay & Bailey Manufacturing Company, I am requesting that you provide the \$8,000,000 in funding necessary to continue the Blue River Channel Project.

Our company, like many others in the valley, were "high & dry" in the record floods of 1961 and 1977. However, because of the residential and commercial development of the upper Blue River basin in the State of Kansas, along with their paved parking lots and new storm sewer systems, we had 5 feet of water in our plant in 1990. The \$1.5 million in damages almost closed us down.

The rainfall in 1990 was considerably less than in 1977, yet the extent of the flooding throughout the lower valley was much more severe. In 1993 and again in 1995 the water was so high that we had to initiate our Emergency Flood Plan. This involves shutting down, raising motors and moving material. Besides costing thousands of dollars, it put employees out of work for several days.

The Blue River flows through the industrial heart of Kansas City with most of the lower stretch in the Enterprise Zone. Increased flooding over the years has forced many industries to abandon the valley. The Army Corps of Engineers' new estimated completion date has been extended from 1998 to 2008. The delay will cause more companies to move out of the valley either because they see the risk as unacceptable or they are washed away by a flood that should have been prevented. Likewise redevelopment of abandoned properties continues to be delayed.

Meanwhile, remediation and redevelopment in the areas where the project is complete has been tremendous. Hundreds of millions of dollars of private money has already been expended to recover the abandoned industrial properties providing jobs and tax dollars.

This is an economically sound project with a benefit to cost ratio of 3 to 1. Again we urge you to provide the \$8,000,000 in funding to continue the project.

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

This statement, made on behalf of the citizens represented by the Yazoo-Mississippi Delta Levee Board (YMD), is not only in support of the funding requests contained herein, but also for the general funding testimony offered for Fiscal 2005 by the Mississippi Valley Flood Control Association. I would ask that this statement be made part of the record.

The Mississippi Valley Flood Control Association is requesting of Congress funding in the amount of \$450 million for the Mississippi River 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.

While we recognize that this is a time when the Federal budget is being inordinately strained by both a slowly recovering economy, the continued hostilities in Iraq and the ongoing war against terrorism, we also recognize both the Nation's economy and the lives and livelihoods of its citizen's rests upon the continued provision of adequate flood control for its heartland.

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 events ever happening again in the Lower Mississippi Valley. As we look back, the MR&T has returned \$284180 billion in benefits for the \$11.90 billion invested—truly an American public works success story.

However, much work remains uncompleted, and if the MR&T success story is to continue, Congress must give it a higher priority than has the administration in its budget. For the totality of the MR&T, the president proposes only \$270 million, an amount which we find critically austere.

The YMD Levee Board urges the 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. We urge Congress to provide funding in the amount of \$450 million so that this national promise can be kept.

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

Mississippi River Levees.—Life as we know it simply could not continue in the Lower Mississippi Valley without its levee system. The need to keep our levee system strong and secure must be given a top priority. The administration's budget earmarks only \$7.665 million to maintaining our levees and we ask Congress to allocate \$14.915 million for this critical need.

Upper Yazoo Projects (UYP).—The top priority for the YMD Levee Board, the Upper Yazoo Projects, was conceived in 1936. The overall 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 into the Mississippi River. Perhaps the least contentious major flood control project in the country, the UYP is progressing smoothly, with virtually no public opposition. However, the proposed budget funds this project at only \$3.850 million and we urge Congress to fully fund at the capability of the Corps of Engineers—\$20 million—so that it might progress and the following be accomplished:

- Complete Channel Item 5B;
- Complete Item 7A and 7B structures;
- Purchase project and mitigation lands;
- Continue Channel Items 6A and 6B and;
- Initiate bridge relocation.

Delta Headwaters Project.—Formerly known as the Demonstration Erosion Control Project, this is a proven concept which works, and should continue, yet is unfunded and would be phased out. We urge Congress not to allow this. Vast amounts of sediments which would be controlled by this project would in its absence end up within the Coldwater/Tallahatchie/Yazoo river system. We urge Congress to appropriate \$25 million for this badly needed effort.

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 by allowing excess waters to be released at controlled rates. All four are aging and require both routine maintenance and upgrading and we ask that the Congress do so at the following levels:

- Arkabutla—\$12.9 million;
- Sardis—\$19.322 million;
- Enid—\$13.679 million;
- Grenada—\$10.101 million.

Big Sunflower River.—We ask that Congress fund at the level of \$5 million so that Item 66 A/B at Swan Lake Levee might be completed and that, the purchase of mitigation lands mitigation and reforestation might continue.

Big Sunflower River Maintenance Project.—We request Congress fund at the level of \$2.139 million so that Items 2 and 4 might be initiated and design might continue.

Yazoo Backwater Pumps.—Of critical concern to South Delta residents and our sister levee board, the Mississippi Levee Board; this project would alleviate backwater flooding. We support that effort and join in requesting funding at a level of \$12 million so that planning and acquisition may continue and a pump supply contract might be initiated.

Yazoo Backwater.—We ask Congress to appropriate \$300,000 to continue pump operations at Greentree reservoirs and to appropriate \$926,000 to rehabilitate bulkheads and provide environmental mitigation.

Main Stem.—We seek \$3.966 million to rehabilitate and replace drainage structures and we request \$25,000 to monitor Sheley Bridge bank stabilization.

Coldwater Basin.—We ask \$750,000 so that a feasibility study might continue.

Quiver River.—We seek \$100,000 to continue a reconnaissance phase of this effort.

Reformulation Unit.—We request \$450,000 to complete reform of the backwater unit and continue work in the tributaries phase of this project.

Finally, in an overall statement on proposed Peer Review Policy within the Corps of Engineers, we would prefer that any such reviews be mandated by Congress to take place only during the study phase of projects and not when actual work has begun.

PREPARED STATEMENT OF THE GREEN BROOK FLOOD CONTROL COMMISSION

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 2005 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.

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.

The first actual construction of the Project began in late fiscal year 2001, in which an old bridge over the Green Brook, connecting the Boroughs of Bound Brook and Middlesex, was replaced with a new and higher bridge. That work is now complete.

The second construction contract, known as Segment T, began in 2002, and is now nearing completion. This work will complete the protection for the eastern portion of Bound Brook Borough.

The next following segment of the Project is planned for construction to begin this year. This next construction, known as Segment U, will begin the protection for the western portion of Bound Brook Borough.

When Congress authorized the Project for construction, it did so only for the lower and Stony Brook portions. This was the result of the objections raised in 1997 by the Municipality of Berkeley Heights, located in the highest elevation portion of the Green Brook Basin.

In 1998 a Task Force was formed to seek a new consensus for protection of the upper portion of the Basin.

Following the recommendations of the Task Force, in calendar year 2003, Resolutions of Support for protection of the upper portion of the Basin were adopted, along the lines of the recommendations of the Task Force. These new Resolutions of Support for the protection of the upper portion of the Basin, principally the Municipalities of Plainfield and Scotch Plains, were adopted by those Municipalities, and by the two affected Counties of Union and Somerset.

A final design for a new plan to protect these upper basin Municipalities remains to be done. This work will involve a new effort by the Corps of Engineers, and of course will require that the Corps of Engineers enlist technical support for surveying, environmental investigations, and design studies, by the placing of appropriate contracts with qualified outside consulting engineering firms.

This work will require many months, and contracts for actual construction of these protective measures for the upper portion of the region are not likely to be ready until several more years. It is understood that when these studies have been completed, it will be necessary for Congress to specifically authorize the final design of the recommended plan. That likely cannot happen until fiscal year 2006, or later.

Meantime, it is essential that this preparatory work continue. And it is thus essential that the Corps of Engineers be authorized and allowed to place contracts for environmental and engineering studies in order to develop an acceptable plan for the protection of the upper portion of the Green Brook Basin.

It is understood that specific action by the Congress is required at this time to authorize the Corps of Engineers to continue this work in fiscal year 2005 and beyond. It is also understood that before final design for protection of the upper portion of the Green Brook Basin can proceed, it will be necessary that a Project Cooperation Agreement be entered into between the Corps of Engineers and the State of New Jersey. Presumably, this Project Cooperation Agreement will be similar to the Agreement now in force between the Corps of Engineers and the State of New Jersey, which was made for the lower and Stony Brook portions of the Green Brook Basin.

Page one of the Syllabus contained in the approved Final General Re-evaluation Report of May 1997 contains the following:

“Accordingly, this final document is considered a decision document for construction of the lower and Stony Brook portions of the Basin, with continued planning and engineering of the separable upper portion of the Basin. The decision to construct the upper portion features will be deferred until such time that evaluations of additional information and views are completed and local interests have the opportunity to review findings.”

To carry this work forward, it is essential that the Corps of Engineers be authorized, within the funds appropriated to them in fiscal year 2005, to place contracts for engineering and environmental studies pertaining to the protection of the upper portion of the Basin.

It is to be noted that the Estimated Damages caused by the Flood of 1973, in the upper portion Municipalities only, reported in the final GRR of May 1997, page 33, showed that Estimated Damages in Plainfield, Scotch Plains and Watchung (the upper portion of the Basin) amounted to an estimated \$357 million.

We urge the members of Congress to direct the Corps of Engineers, within the funds made available to them for fiscal year 2005, to continue the necessary investigations and studies, and to authorize the Corps of Engineers to place contracts for such investigations as may be necessary, so that the preparatory work for the ultimate protection of the people and property within the upper portion of the Basin can be carried forward.

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 33 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 2005.

We urgently request an appropriation for the Project in fiscal year 2005 of \$10,000,000.

With your continued support, the Green Brook Flood Control Commission is 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 GREEN BROOK SUB-BASIN, RARITAN RIVER BASIN, NEW JERSEY GREEN BROOK FLOOD CONTROL PROJECT FUNDING							
A	B	C	D	E	F	G	
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 1988
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	-632,000	2,968,000	+193,000	2,861,000	21,219,000
1997	2,781,000	2,781,000	-300,000	2,481,000	300,000	2,781,000	24,000,000
1998	---	3,100,000	-169,000	2,911,000	---	2,911,000	26,911,000
1999	---	9,900,000	-694,000	9,206,000	-8,500,000	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	+1,048,000	9,450,000	43,374,000
2003	5,000,000	7,000,000	-1,253,000	5,747,000	-642,000	4,905,000	48,279,000
2004	6,500,000	7,000,000	Recommendation of the Green Brook Flood Control Commission				
2005	9,100,000	\$ 10,000,000	For FY2005 to Continue Construction				

REFERENCE:
THIS SUMMARY OF FUNDING FOR THE GREEN BROOK FLOOD CONTROL PROJECT
HAS BEEN ASSEMBLED BASED UPON PUBLICLY AVAILABLE INFORMATION.

PRESENTED BY:
GREEN BROOK FLOOD CONTROL COMMISSION
GREEN BROOK, NJ 08812

PREPARED STATEMENT OF THE MOSS LANDING HARBOR DISTRICT

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 2005 energy and water regular appropriations measure.

The commission recognizes and expresses its gratitude to our two senators, the Honorable Dianne Feinstein, a valuable member of this committee, and the Honorable Barbara Boxer for their continued assistance and support on our behalf.

We express our profound appreciation to the subcommittee and full committee for its inclusion of \$600,000 in fiscal year 2004 appropriated funds for the preparation of a screening level Ecological Risk Assessment under U.S. Army Corps of Engineers Waterways Experiment Station supervision. The assessment was recently critiqued by a preeminent peer group of experts scholars representing a broad cross section of professional disciplines.

This sets the stage—with the committee's support—for the preparation 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 next year and over the next 20 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 for contaminated dredged material. The SF-12 aquatic disposal site is grandfathered for sanctuary purposes. It is located 50 yards offshore at the apex of the Monterey Bay Submarine Canyon which plunges to a depth of 8,000 feet in less than 1 mile. Every year, Periodic 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 \$600,000 has been expended to begin the ERA process. Most of that was transferred to the Corps of Engineers Waterways Experiment Station (WES) to prepare a preliminary Ecological Risk Assessment (ERA). Previously appropriated operations and maintenance funds have already been expended to reimburse the San Francisco district for program management costs, conduct of the required economic analysis (including a finding of a very favorable current project 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 most significant findings of the screening comparative ERA were that in most cases the environmental impacts associated with periodic maintenance dredging and disposal at the SF-12 site were less than the no action alternative as periodic dredging removes the accumulation of contaminated material in the first few centimeters thereby reducing its bioavailability to benthic organisms at the base of the food web thereby precluding its absorption in the lipid tissue of higher trophic level organisms.

With the committee's support 2 years we completed a periodic dredging cycle of the Federal channel work and the Inner Harbor using a combination of beach replenishment and ocean disposal at the SF-12 historic disposal site for the first time in a decade. We anticipate that next year we will finally returned to a normal 3-year maintenance cycle of the Federal channel while local berth dredging of our all-important commercial fishing and oceanographic vessel berths continues on an annual basis.

During the next year we will be analyzing exiting data from a variety of sources including USGS, Moss Landing Marine Laboratory, and the Naval Post Graduate School among others filling in identified data gaps in the screening ERA to drive the WES model, as necessary completing complementary local site-specific scientific studies, and integrating all those results into the DMMP process.

To this end we request the subcommittee's approval of \$600,000 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 2006.

With the assistance of the local scientific community, we are fortunate to have as much as 3 years of scientific data in the form of benthic community biomass and tissue sampling, and first-ever near-shore 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 able to take advantage of last 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.

Despite the drastic differences between the use of the WES ERA model adapted from aquatic Mississippi River application and our unique submarine canyon ecosystem and volume of material, a tracer study using European technology was synchronized with the last disposal event that demonstrated the rapid dispersion of dredged material at the SF-12 site. We are confident that on the basis of our preliminary review—and that of the peer group—of the screening level ERA supported by local site specific analysis of data already collected and focused studies to augment the WES risk assessment model, the end result will be a document that will ultimately prove persuasive and compelling 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 out-

put results of the other in predicting and directly measuring the impacts of dredged material disposal at our ocean disposal site.

Based upon our experience thus far, the funds expended completing the DMMP/ERA process in developing a persuasive case to the various constituencies and decision document supporting continued aquatic disposal for all but a very small fraction of total dredged material in exceptional circumstances over a 20 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:

(1) 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

(2) serve as a model for collaborative effort in dredged material disposal consensus decision-making 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.

JOINT PREPARED STATEMENT OF THE PORT COMMERCE DEPARTMENT, THE PORT AUTHORITY OF NEW YORK & NEW JERSEY; NEW JERSEY MARITIME RESOURCES, DEPARTMENT OF TRANSPORTATION, STATE OF NEW JERSEY; EMPIRE STATE DEVELOPMENT CORPORATION, STATE OF NEW YORK; AND NEW YORK CITY ECONOMIC DEVELOPMENT CORPORATION

On behalf of the Port of New York and New Jersey, we thank you for your continued support of the Nation's navigation system. We appreciate the consistent level of funding that the committee has provided this bi-State gateway that we are preparing for tomorrow's commerce in partnership with the Federal Government. We were very pleased that Chairman David Hobson and Rep. Rodney Frelinghuysen were able to visit the port earlier this year. We would welcome all members of the subcommittee to get a first-hand look at the harbor and its role in the U.S. transportation system.

We are gratified that in the fiscal year 2005 budget the administration maintains the deepening of the Port's main system of channels as a priority. As such, we strongly endorse the President's request for \$103,000,000 for the NY & NJ Harbor Deepening Project. As pleased as we are with that, we also share the concerns of many in the national water resources sector that the overall civil works program is shrinking. That is happening even as demand for navigation and other water resource projects remains high. Our transportation and economic systems will remain strong as long as the Nation's infrastructure is up to the task and natural resources are in good condition. The long-term capacity of the Corps of Engineers to help non-Federal governments tackle infrastructure needs depends on strong funding.

Business in the Port of NY/NJ continues to increase at a strong pace, lending credence to the government's view that investing in port channels is good for the Nation. In 2003, our region's marine terminals handled a record 4 million TEUs, an increase of roughly 300,000 TEUs over 2002. More steamship lines are starting all-water service to the East Coast to reduce costs and their reliance on ports of only one U.S. coast. This continuing trend promises greater cargo throughput in the years ahead. The Port and industry are preparing for the influx with a \$1.46 billion redevelopment program that includes underwater, terminal, and access improvements. That public/private investment illustrates the partnership between the Federal and non-Federal investors in the Nation's economic future. The bi-State Port supports almost 40,000 terminal-based jobs and over 189,000 off-terminal positions, but the benefits are not limited to our region. Nationwide, almost 186,000 additional jobs are supported by the Port. The Port directly serves the Northeast and Midwest as well as most States in the continental United States. The channel projects will improve transportation efficiency that will benefit those markets and our national defense.

Crucial to the Port redevelopment program is the support of Governor James McGreevey and Governor George Pataki. They made strong commitments to investing Port Authority and other resources to make the Port and regional freight transportation more efficient, and the Port's natural resources healthier. We are proud

of the support that businesses, labor, local government and others, listed at the top of this statement, have given to this most productive port on the Atlantic Ocean.

Below are our comments on the fiscal year 2005 budget request. We enthusiastically support the administration's request with respect to the Harbor Deepening Project and respectfully request that the subcommittee appropriate funds at higher levels for select projects as noted and discussed below. Projects in bold lettering are requests beyond the fiscal year 2005 budget levels.

	Budget	Port Request
Construction: New York & New Jersey Harbor	\$103,000,000	\$103,000,000
Surveys (Studies):		
Hudson-Raritan Estuary, NY & NJ	450,000	2,500,000
Hudson-Raritan Estuary, Lower Passaic River, NJ	50,000	1,500,000
Hudson-Raritan Estuary, Gowanus Canal, NY	150,000	1,500,000
Hudson-Raritan Estuary, Meadowlands, NJ	100,000	850,000
TOTAL	750,000	6,350,000
Operation and Maintenance:		
Buttermilk Channel, NY	1,030,000	1,030,000
East River, NY	370,000	370,000
East Rockaway Inlet, NY	2,100,000	2,100,000
Flushing Bay & Creek, NY		11,000,000
Hudson River Channel		4,500,000
Jamaica Bay, NY	2,200,000	2,200,000
New York Harbor, NY & NJ Drift Removal	5,414,000	5,914,000
New York Harbor, NY	4,235,000	4,235,000
New York & New Jersey Channels	5,700,000	7,000,000
Newark Bay, Hackensack & Passaic Rivers, NJ	120,000	3,000,000
Project Condition Surveys, NJ	1,670,000	1,670,000
Project Condition Surveys, NY	1,075,000	1,075,000
Raritan River, NJ		2,500,000
Westchester Creek, NY		100,000
TOTAL	23,914,000	46,744,000

CONSTRUCTION

New York and New Jersey Harbor

This project was authorized by Section 101(a)(2) of WRDA 2000 (Public Law 106-541). It includes deepening the Ambrose Channel from deep water to the Verrazano-Narrows Bridge to 53 feet mlw, and deepening the Anchorage Channel and those channels that lead to the principal general cargo and breakbulk marine terminal areas to 50 feet mlw. The Corps of Engineers and the intended project sponsor are engaged in pre-construction engineering and design work to bring this project into construction seamlessly as the Kill Van Kull and Newark Bay deepening to 45 feet is concluded in late 2004. To facilitate project transition, the intended project sponsor is completing a construction contract to deepen to 50-foot portions of the Kill Van Kull and Newark Bay channels as a complement to the Corps' 45-foot project. These efforts and the overall commitment of the Port to the projects are strong testimony to our desire to advance this project with the Federal Government. We urge adoption of the budget request.

SURVEYS (STUDIES)

Hudson-Raritan Estuary Studies

These studies were authorized by House Committee Resolution dated April 15, 1999, Docket Number 2596. Increases are requested for the studies in order to achieve the completion schedules of 2005 for the New York & New Jersey and Lower Passaic studies and 2004 for the Gowanus study.

—*New York & New Jersey.*—The study purpose is to identify projects to restore estuarine, wetland and adjacent upland buffer habitat throughout the port region to the extent practicable and in keeping with existing port and regional management plans. The Corps and the Port Authority signed the Feasibility Cost Sharing Agreement on July 12, 2001, and immediately began the study. Natural resource areas, degraded as a result of historic damage, need to be re-

turned to their full potential. The continued loss of wetlands, not only through development but due to inexplicable causes, will require further analysis, monitoring and restoration. One project that can move on a fast track is Liberty State Park, where the State of New Jersey has all of its required project funds on hand, ready to provide to the Corps for construction. Given the past funding levels, the Corps is unable to proceed both with the Liberty State Park and the comprehensive regional study. We respectfully request that the budget be augmented to \$2,500,000 to allow the Corps to keep its commitments to place the environment on an equal footing with navigation improvements.

—*Lower Passaic*.—Local communities throughout the Passaic River Basin requested a program of improvements to remediate and restore the river. The river and adjacent shorelines have been degraded by historic industrial/commercial activity and associated impacts of urban development. The Corps initiated the Reconnaissance Phase in January 2000 that recommended a separate study for the tidal influence of the Lower Passaic River. In June 2003, the Corps, in partnership with EPA and the NJDOT/Office of Maritime Resources, completed a comprehensive Project Management Plan (PMP) that integrates the work of all three agencies into a single study to determine the best approach. In the same month, the Corps signed the Feasibility Cost-Sharing Agreement (FCSA) with the Office of Maritime Resources and began the feasibility study. This project also has been designated as a pilot project under the joint Corps-EPA Urban Rivers Restoration Initiative. Despite the outstanding coordination between the three agencies, Federal funding is a concern. We are pleased that the non-Federal matching funding will be available as the project requires. EPA expects sufficient funding from PRPs to begin field investigations by Fall 2004. As such, lack of Federal funding will jeopardize the Corps' ability to participate in the joint fieldwork envisioned in the PMP. For that reason, we request that the budget be augmented to \$1,500,000 for this study.

—*Gowanus*.—The feasibility study will assess the environmental problems and potential solutions in the Gowanus Canal and Bay. Restoration measures will assess hot spot clean-up of off-channel contaminated sediments, contaminant reduction measures, creation of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality. This has been designated as a pilot project under the joint Corps-EPA Urban Rivers Restoration Initiative. A FCSA was executed with the NYC Department of Environmental Protection in March 2002. The City has committed its full share to the project, and awaits the Federal match. In order to continue the study restoration of this highly contaminated, visible urban body of water (including benefits to human health), we request that the budget be augmented to \$1,500,000.

—*Hackensack*.—This study will look at the feasibility of restoring wetlands in the Hackensack Meadowlands area and will assess toxic waste remediation potential. The area's existing wildlife habitat preserves are threatened by dwindling open marshes. The local sponsor is the NJ Meadowlands Commission, which has committed funding, and looks toward the Federal share. We respectfully request that the budget be augmented to \$850,000 for this study aimed at protecting marshes, tidal creeks and open spaces.

OPERATION AND MAINTENANCE

Operation and maintenance projects are critical to the commerce, navigation and security of the Port as well as the Nation's security. If channels are not maintained to official depths and as needed by today's commerce, the efficiency of the Federal system of channels is lost and the risk of groundings increases. The Corps deepened the Newark Bay channel that leads to the Port Newark/Elizabeth terminal complex from 35 feet to 40 feet in 1995 as part of Phase 1 of the Kill Van Kull-Newark Bay 45-foot deepening project. In fiscal year 2002, Congress appropriated funds that enabled only partial maintenance of that channel, leaving significant areas at shallow and potentially unsafe depths. Unfortunately, the proposed budget would provide insufficient funding to adequately maintain Federal channels in the Port. The Port is one of the Nation's busiest petroleum ports and the Arthur Kill and Raritan River channels are critical to that trade. Maintenance of the two channels is needed to support the industry, which serves not only the greater New York metropolitan area but much of the American northeast. Of course, maintenance also protects and perpetuates the Federal infrastructure investment.

With the above concerns in mind, we think it is important to be on the record as to how this part of the fiscal year 2005 budget is insufficient to meet the practical needs of commerce. We respectfully request that the budget be augmented by \$22,830,000 to \$46,744,000 for Port channel operation and maintenance work. This

also would enable the Corps to address serious shoaling problems in industrial and commercial portions of Flushing Creek, the Arthur Kill, the Hudson River Channel and the Raritan River, and to maintain on-going activities and upgrade the operational facilities at the Corps' Caven Point facility relative to the important, ongoing New York Harbor Drift Removal efforts.

CONCLUSION

The Port of New York & New Jersey continues to be a major gateway for a substantial part of the country. Cargo volume has grown, even while the economy struggles, and has been a source of increased jobs and commercial investment. The civil works program in the Port, coupled with public and private sector investments, has served well the Nation's economic and security interests for the better part of two centuries. The same is true in ports across the United States. We are proud of that history and commit to continuing this productive partnership with the Federal Government so that our region will serve the Nation for centuries to come.

PREPARED STATEMENT OF THE MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION

My name is M.V. Williams, I serve as President of the West Tennessee Tributaries Association and submit this statement on behalf of the Mississippi Valley Flood Control Association. It is my privilege to serve as Chairman of the Executive Committee for the Association.

The Mississippi Valley Flood Control Association was first organized in 1922 and played a very large role in gaining authorization for the first major Federal water resources bill, the Flood Control Act of 1928 that established the Mississippi River and Tributaries Project. This statement is in support of additional funding for that project.

Today our Nation is faced with a war on terror and we are also mindful of the fact that we must rectify an economic condition that needs immediate attention. Even faced with those facts, we feel that we are justified in urging additional appropriations for the Mississippi River and Tributaries Project because the assets and resources of this great Nation must not be neglected during these times. We know of no other appropriation which contributes as much to national wealth and resources as does flood control and navigation for the major rivers of this country.

Millions of acres which were overflow lands decades ago are now highly productive and contributing to our national wealth. These lands by reason of their geographic location are the most fertile of the Nation. They produce an abundance of food and fiber for the general welfare and prosperity of the country. This is only possible because of the coordinated work performed by the United States Corps of Engineers and the local people.

The inland waterways of the Nation provide the cheapest and in some cases the only method to move bulk commodities that are absolutely essential to the general welfare and prosperity of the country. Moneys appropriated by Congress for flood control and navigation has and will augment our natural resources and improve our economic well-being. The appropriations made by Congress for the Mississippi River and Tributaries Project are investments in this Nation's future.

Since the productivity of the millions of acres of low lying lands adjacent to the main stem of the Mississippi River are totally dependent upon the integrity of the flood control works, any major slow down in the completion of this work will represent economic strangulation to this productive portion of our Nation.

If no funds are added to the President's budget request, the Corps of Engineers will be forced to curtail operations of locks and some harbors may be closed from lack of maintenance dredging. This will mean the loss of jobs and possible closure of plants that have millions of dollars invested in their facilities. Recreational areas will be forced to close, disrupting the lives of millions of citizens from all walks of life.

In addition to the problems with the inadequate funding in the President's budget request, we also have a tremendous problem with the fact that the Office of Management and Budget is attempting to dictate policy matters by the use of the budget submission. The greatest damage from this policy change would be to take the Congress out of its historical role of legislating policy for the flood control and navigation programs that have played a large part in making the United States the greatest industrial and commercial nation on the globe—with its resources, its wealth and productive capability that has saved the world in war and sustained it through years of troubled peace.

The executive department is again attempting to supplant this historical Congressional role and assume these policy making functions. In past attempts, the Con-

gress in its wisdom has soundly rejected these attempts. We would urge this Congress to do the same.

In closing let me reemphasize that Federal works projects with proven merit such as the Mississippi River and Tributaries Project represent a sound Federal investment which has and will return to the tax payers of this country generous dividends. Such Federal investments contribute to the economic well being of the Nation by reducing unemployment; adding to the stability and economic growth of agriculture and industry; and providing a flood free environment for the welfare of the people of the Mississippi River Valley.

For these and other reasons, we are firmly convinced that the amount of appropriations required in fiscal year 2005 for the Mississippi River and Tributaries Project is \$450,000,000. An attached sheet to this statement reflects our request in more detail.

Speaking for the entire Mississippi Valley Flood Control Association, I wish to thank the subcommittee for the opportunity to present this statement and special thanks for the actions that this group has taken in the past to assist us with our problems and concerns with water resources.

MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2005 CIVIL WORKS REQUESTED
BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES PROJECT—MAINTENANCE

Project	President's Budget	MVFA Request
Wappapello Lake, MO	\$4,046,000	\$6,352,000
Mississippi River Levees	7,665,000	14,915,000
Dredging	20,515,000	20,515,000
Revetment and Dikes	48,760,000	48,760,000
Memphis Harbor, TN	1,205,000	2,010,000
Helena Harbor, TN	385,000	510,000
Greenville Harbor, MS	29,000	412,000
Vicksburg Harbor, MS	32,000	345,000
St. Francis River & Tribs, AR	6,080,000	8,805,000
White River Backwater, AR	1,316,000	2,260,000
North Bank, Arkansas River, AR	146,000	146,000
South Bank, Arkansas River, AR	122,000	122,000
Boeuf & Tensas Rivers, LA	2,160,000	2,160,000
Red River Backwater, LA	3,083,000	7,390,000
Yazoo Basin, Sardis Lake, MS	7,046,000	19,322,000
Yazoo Basin, Arkabutla Lake, MS	5,710,000	12,900,000
Yazoo Basin, Enid Lake, MS	4,954,000	13,679,000
Yazoo Basin, Grenada Lake, MS	5,553,000	10,101,000
Yazoo Basin, Greenwood, MS	585,000	2,035,000
Yazoo Basin, Yazoo City, MS	729,000	729,000
Yazoo Basin, Main Stem, MS	1,013,000	3,966,000
Yazoo Basin, Tributaries, MS	923,000	923,000
Yazoo Basin, Whittington Aux Channel, MS	400,000	400,000
Yazoo Basin, Big Sunflower, MS	139,000	2,139,000
Yazoo Basin, Yazoo Backwater, MS	440,000	926,000
Lower Red River, South Bank, LA	105,000	105,000
Bonnet Carre, LA	2,310,000	3,100,000
Old River, LA	7,350,000	29,900,000
Atchafalaya Basin, LA	13,000,000	25,000,000
Atchafalaya Basin Floodway, LA	2,775,000	4,200,000
Baton Rouge Harbor Devil's Swamp, LA	14,000	300,000
Miss Delta Region, LA	588,000	588,000
Bayou Cocodrie & Tribs, LA	65,000	65,000
Inspection of Completed Works	1,500,000	1,700,000
Mapping	1,112,000	1,325,000
Total MR&T Maintenance	151,855,000	248,105,000

**MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION—FISCAL YEAR 2005 CIVIL WORKS REQUESTED
BUDGET—MISSISSIPPI RIVER AND TRIBUTARIES APPROPRIATIONS**

Project and State	President's Budget	MVFA Request
Surveys, Continuation of Planning and Engineering & Advance Engineering & Design:		
Memphis Harbor, TN		
Germantown, TN	\$27,000	\$27,000
Millington, TN	100,000	100,000
Fletcher Creek, TN	93,000	93,000
Memphis Metro Storm Water Management, TN		100,000
Bayou Meto, AR		2,447,000
Germantown, TN		200,000
Southeast Arkansas		600,000
Coldwater Basin Below Arkabutla Lake, MS	203,000	750,000
Quiver River, MS		100,000
Spring Bayou, LA	500,000	600,000
Point Coupee to St. Mary Parish, LA		100,000
Atchafalaya Basin Floodway System, LA*	100,000	100,000
Alexandria, LA to the Gulf of Mexico	435,000	435,000
Morganza, LA to the Gulf of Mexico	1,500,000	10,000,000
Donaldsonville, LA to the Gulf of Mexico	800,000	1,200,000
Tensas River, LA		500,000
Donaldsonville Port Development, LA		100,000
Collection & Study of Basic Data	700,000	700,000
Subtotal, Surveys, Continuation of Planning & Engineering & Advance Engineering & Design	4,458,000	18,152,000
Construction:		
St. John's Bayou-New Madrid Floodway, MO	8,300,000	8,300,000
Eight Mile Creek, AR	1,357,000	3,293,000
Helena & Vicinity, AR		
Grand Prairie Region, AR		20,000,000
Bayou Meto, AR		18,000,000
West Tennessee Tributaries, TN		700,000
Nonconnah Creek, TN	2,153,000	2,753,000
Wolf River, Memphis, TN		2,400,000
August to Clarendon Levee, Lower White River, AR		2,000,000
St. Francis Basin, MO & AR	3,000,000	9,500,000
Yazoo Basin, MS	5,850,000	62,775,000
Atchafalaya Basin, LA	22,495,000	32,500,000
Atchafalaya Basin Floodway, LA	7,200,000	10,000,000
MS Delta Region, LA	1,800,000	4,700,000
Horn Lake Creek, MS		203,000
MS & LA Estaurine Area, MS & LA		50,000
Channel Improvements, IL, KY, MO, AR, TN, MS & LA	36,882,000	44,082,000
Mississippi River Levees, IL, KY, MO, AR, TN, MS & LA	38,960,000	54,800,000
Subtotal, Construction	127,997,000	276,056,000
Subtotal, Maintenance	151,855,000	248,105,000
Subtotal, Mississippi River & Tributaries	284,310,000	542,313,000
Less Reduction for Savings & Slippage	— 14,310,000	92,313,000
Grand Total, Mississippi River & Tributaries	270,000,000	450,000,000

**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 2005 appropriation of \$1.5 million 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 2004. We are extremely grateful for the subcommittee's ongoing support of the project. We respectfully request your continued support for this project in fiscal year 2005 with an appropriation of \$1.5 million, which will initiate the pre-construction engineering and design portion (PED) of the project.

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 \$349,000 for the project in fiscal year 2004, the Corps has a capability of \$1.5 to initiate PED 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.

SRPMIC 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 \$1.5 million to initiate PED on this project in fiscal year 2005. On behalf of the SRPMIC and the City of Mesa, we ask that you fully fund the Va Shly'ay Akimel project at \$1.5 million in fiscal year 2005.

PREPARED STATEMENT OF THE SEMINOLE TRIBE OF FLORIDA

The Seminole Tribe of Florida is pleased to submit this statement regarding the fiscal year 2005 budget for the Army Corps of Engineers (Corps). The Tribe asks that Congress provide \$27,000,000 in the Corps' construction budget for critical projects in the South Florida Ecosystem, as authorized in section 528 of the Water Resources Development Act (WRDA) of 1996, and amended by section 208 of WRDA 1999. The critical projects program is tasked with completing ten projects, one of which is complete, and the remaining nine either completing planning and design or construction. The Seminole Tribe has partnered with the Corps to design, build, and operate the critical project on the Big Cypress Reservation, located in the western basins of the Everglades, directly north of the Big Cypress National Preserve.

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. The project is divided into two phases; construction of the first phase is complete and planning and design on the second phase will be complete in a few months, allowing construction to begin in fiscal year 2005.

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. This 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 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.

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 seven 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 completed 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 VOLUSIA COUNTY, FLORIDA

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

- \$3,500,000 in fiscal year 2005 to the U.S. Army Corps of Engineers' (Corps) Construction account to fund an 1,000 foot seaward extension of the South Jetty of the Ponce DeLeon Inlet. The South Jetty seaward extension, along with the North Jetty landward extension funded in fiscal years 1999, 2000, and 2002 and completed in June 2003, is essential for safe inlet navigation and protection of the Federal investment in the Inlet channel.
- \$3,000,000 in fiscal year 2005 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.
- \$500,000 in fiscal year 2005 to the Corps' General Investigations account to fund the feasibility study for the Volusia County Shore Protection project for the shore protection of 49.5 miles of Volusia County beaches.

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

PONCE DELEON INLET

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 dis-

courage 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 shoaling 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.

In fiscal year 2004, Congress provided \$500,000 in the Corps' Construction account for construction of the South Jetty oceanward extension, as authorized by WRDA 1999.

For fiscal year 2005, Volusia County requests that the Corps receive \$3.5 million for the balance of the Federal share of construction funds for the South Jetty oceanward extension. The project manager expects the South Jetty to be constructed in one fiscal year. 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 South Jetty, to complement the North 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.

VOLUSIA COUNTY BEACH PROTECTION PROJECT

In August 1991, the Corps of Engineers completed a favorable reconnaissance report for the shore protection study to address the critical erosion along the County's 49.5 miles of ocean shoreline, as authorized by the House Transportation and Infrastructure Committee in September 1988. The County declined to act as the non-Federal sponsor for the feasibility study at that time. The Corps modified the 1991 reconnaissance study in 1994. As a result of heavy damage to the County's shoreline sustained during the 1999 hurricane season, the County recognized the critical need to address the growing impact of the storm-induced erosion. The Corps will need to modify the earlier studies. A new reconnaissance study for the Volusia County Shore Protection project (formerly known as the Daytona Beach Shores project) was authorized by a resolution adopted by the House Transportation and Infrastructure Committee on February 16, 2000. In fiscal year 2003, Congress provided the Corps with \$100,000 to complete the reconnaissance study. The Corps has completed the draft reconnaissance study, which is currently undergoing final review and is expected to be completed during fiscal year 2004. The draft reconnaissance study recommends further action. A feasibility study is the next step.

The feasibility study will include, among other things, plan formulation, surveys, geotechnical analysis, beach modeling, and environmental analysis for Volusia County's 49.5 mile shoreline. The Corps estimates the cost of the feasibility study to be \$3 million and expects to complete the study in 3 to 4 years. The cost share for the feasibility study is 50 percent Federal and 50 percent non-Federal. In fiscal year 2005, the Corps will spend \$1 million for the Volusia County Shore Protection Project, of which the Federal share is \$500,000.

While previous studies to address beach erosion were not acceptable to the County as the local sponsor, the County seeks the Corps' assistance now to address continuing erosion damage initiated during the 1999 hurricane season. The County recognizes its dire need in having its beaches renewed, preserved, and protected.

Thank you for your consideration of this request.

PREPARED STATEMENT OF THE NATIONAL MINING ASSOCIATION

The National Mining Association's (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 2002, approximately 2.34 billion tons of commerce moved in the U.S. marine system (inland waterways, Great Lakes, coastal and deep-draft ports). Of that total, approximately 1.02 billion tons were domestic movements with coal comprising approximately 227 million tons or 22 percent of all commodities. Of the 227 million tons of coal, 175 million tons were carried on the inland and intracoastal waterways, 19.4 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 159 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 Ohio basin. In addition, 48.7 million tons of coal was exported in 2002.

Iron ore, phosphate rock, and other minerals also utilize the inland waterways system. In 2002, 73.1 million tons of iron ore moved on the system. Of the total, 52.4 million tons moved domestically with 46.8 million tons moved on the Great Lakes and 5.6 million tons on the inland system. More than 6.2 million tons of phosphate rock moved on the waterways system with 3.5 million tons by coastwise movements.

NMA is very concerned that the proposed fiscal year 2005 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. The 25,000 miles of waterways and harbor channels are a major component of the transportation infrastructure system in the United States. The Nation's waterways system is an efficient and timely method to move commerce throughout the United States. It currently moves 2.4 billion tons of cargo annually.

Each year, barges on the waterways handle cargo equal to 40 million trucks or 10 million railcars. Without the waterways system, the Nation's already overcrowded and in some cases gridlocked highways, would not be able to be used. In addition, there would be a significant increase in air and noise pollution from the additional trucks on the roads. A river barge with a 1,500-ton capacity can transport up to 58 large trucks or 15 large jumbo rail hopper cars worth of cargo. Barge transport also saves shippers on average \$11 per ton, compared to shipping the same amount of cargo by truck or rail.

In addition, the waterways system is critical to our Nation's national defense. Manufacturing and industrial facilities providing the military with needed weapons and materials are located near the Nation's water system. Many of our Nation's large commercial ports also serve as the home to the U.S. Navy's fleets.

NMA is concerned that the full amount appropriated by Congress to a specific project is not always what is actually available to a project for a specified fiscal year. For example, in fiscal year 2004, the Kentucky Lock was appropriated \$29.9 million but the project actually received \$23.1 million for fiscal year 2004. Because of the reduced funding levels, projects are taking longer and the benefits are being lost to shippers and to the U.S. economy. NMA requests that projects receive the full amount appropriated in a given fiscal year.

NMA continues to be very concerned with the surplus in the Inland Waterways Trust Fund (IWTF). One-half of the lock and dam construction and major rehabilitation funds come from the Inland Waterways Trust Fund (IWTF), which receives 20 cents from a 24.3 cents per gallon tax on the fuel used for inland waterways barge operations. The General Treasury receives the remaining 4.3 cents. Commercial users are the only beneficiaries of the inland waterways system who pay a fuel tax, while beneficiaries who receive flood control, water supply, recreational and other benefits do not contribute to the construction or maintenance of the system providing these benefits. For the last 12 years, the Federal Government has not allocated sufficient funds to these projects to keep up with revenues flowing into the IWTF. The result as of September 30, 2001 is a Fund surplus of approximately \$392 million according to The Bureau of Public Debt, U.S. Department of the Treasury. A constraint on the funding for construction and rehabilitation projects has not been the revenue collected from the fuel tax but the limited level of funding appropriated from the IWTF. It is time to seriously address the backlog and to appropriate funds to finish the projects underway.

NMA reviewed the proposed fiscal year 2005 request for the U.S. Army Corps of Engineers and the Civil Works Program and has the following general recommendations.

- A minimum of \$5.5 billion should be appropriated in fiscal year 2005 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 needs for jobs, economic growth, homeland security and national defense.
- A level of \$150 million should be appropriated from the Inland Waterways Trust Fund to be matched by an equal expenditure from the general fund for the construction and major rehabilitation of locks and dams on the inland waterways 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 and timely completion of these required navigation projects will accelerate the national economic benefits from the projects and minimize cost increases.

- The fiscal year 2005 appropriations for the Corps' General Investigations account should be increased to \$200 million. The proposed fiscal year 2005 level of \$90.5 million will not permit the Corps to undertake any new studies. These studies are critical to ascertaining and developing future projects. 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 2005 proposed funding in the amount of \$1.926 billion for the Corps' Operations and Maintenance functions should be increased. At the beginning of fiscal year 2004, it was estimated that critical maintenance backlog was \$1.01 billion. This is a \$127 million or 12.7 increase from the previous year. It is anticipated the backlog will grow to \$1.1 billion under the administration's fiscal year 2005 request. This increase is of great concern given that the backlog was approximately \$200 million in fiscal year 1998. Currently, more than half of the locks and dams on the system are 50 years older or more. With the funding constraints for new construction and rehabilitation projects, it is imperative that existing locks and dams be 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.

The problems of an aging system were exemplified at Greenup Locks and Dam when significant problems were encountered during ongoing repairs to the gates on the main chamber. What began on September 8, 2004 as a scheduled 3-week outage lasted 54 days and cost the navigation industry an estimated \$14 million in lost revenue due to significant delays. For Dayton Power and Light, the delays cost \$7 million to find alternative rail transportation for its coal.

NMA'S FISCAL YEAR 2005 PROJECT APPROPRIATIONS LEVELS NEEDING ADDITIONAL FUNDS

Construction and Rehabilitation Projects

Olmsted Locks & Dam—Fiscal Year 2005 Request: \$75 million, Efficient Funding Level: \$110 million

According to the U.S. Army Corps of Engineers Waterborne Commerce Statistics for 2001, more tonnage passes through this point than any other place in the inland waterways system with 96.7 million tons valued at \$20 billion in 2001. Coal comprises 25 percent of the tonnage, moving to more than 50 power plants on the Ohio River System and 17 power plants in eight States on the Upper or Lower Mississippi River. The total project cost is \$1.40 billion with a balance of \$800 million. The project is 6 years behind schedule with lost benefits of \$2.7 billion. If the project continues to be funded at constrained levels and not at efficient funding levels, the project could be delayed another 8 years with a total of loss of \$7.2 billion in navigation benefits.

McAlpine Locks—Fiscal Year 2005 Request: \$58 million, Efficient Funding Level: \$120 million

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. With 20 million tons, coal was the leading commodity comprising 37 percent of all shipments. Thirteen million tons went to 30 power plants in 8 States. The total project cost is \$350 million with a balance of \$241 million. The project is 5 years behind schedule with lost benefits of \$228 million. If the project continues to be funded at constrained levels, it could be delayed another 5 years (2012) resulting in an additional loss of \$163 million in navigation benefits.

Locks & Dams 2, 3 and 4—Fiscal Year 2005 Request: \$31 million, Efficient Funding Level: \$60 million

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 with 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. The total cost is \$750 million with a balance of \$500 million. The project is 9 years behind schedule resulting in \$870 million in lost navigation benefits. If the project continues to be funded at constrained levels, the project could be further delayed to 2020 and a total of \$1.2 billion in lost navigation benefits.

Marmet Locks & Dams—Fiscal Year 2005 Request: \$50 million, Efficient Funding Level: \$75 million

The U.S. Army Corps of Engineers Waterborne Commerce Statistic for 2001 indicate 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. The project cost is \$333 with a 2010 completion date (originally 2007). There is a balance of \$219 million. Marmet has already experienced a 2-year completion delay and continued constrained funding levels, the project could be delayed another 5 years at loss of \$201 million in navigation benefits.

Kentucky Lock—Fiscal Year 2005 Request: \$25 million, Efficient Funding Level: \$55 million

The U.S. Army Corps of Engineers Waterborne Commerce Statistics for 2001 indicate 35 million tons of commodities valued at \$6.2 billion moved through the lock. Coal was the number one commodity with 12.6 million tons or 36 percent of all shipments. The value was almost \$500 million. The coal moved to 9 power plants in the south including several owned by the Tennessee Valley Authority. Total project cost is \$642 million. The project is already 5 years behind schedule. If the project continues to be funded at constrained levels then the project could be delayed until 2025 with \$780 million in lost navigation benefits.

Preconstruction Engineering and Design

J.T. Myers Locks & Dam—Fiscal Year 2005 Request: \$700,000, Efficient Funding Level: \$2 million.

Surveys

Emsworth, Dashields & Montgomery Lock and Dams Fiscal Year 2005 Request: \$3.1, Efficient Funding Level: \$1.5 million.

CONCLUSION

NMA is very concerned that the Nation's inland waterways system is not receiving sufficient funds in the fiscal year 2005 budget to keep critical navigation projects on schedule and to address the very large maintenance backlog for existing navigation projects. 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.

PREPARED STATEMENT OF THE BOARD OF COMMISSIONERS OF THE PONTCHARTRAIN
LEVEE DISTRICT

FLOOD CONTROL, NAVIGATION, HURRICANE PROTECTION AND WATER RESOURCE PROJECTS

Project	Recommended
General Investigations:	
Amite River & Tributaries Bayou Manchac, LA	\$800,000
West Shore, Lake Pontchartrain & Vicinity, LA, St. John the Baptist Parish	400,000
General Construction:	
Lake Pontchartrain & Vicinity, LA (Hurricane Protection)	22,000,000

COMMENTS ON PROJECTS

Lake Pontchartrain & Vicinity, LA

Around Lake Pontchartrain there are several segments under construction with this major title. All segments are nearing completion except St. Charles Parish Hurricane Protection of which the local sponsor is the Pontchartrain Levee District. The St. Charles project has 10 miles of levee, 5 major floodgate structures and a construction cost of \$100 million. If Congress provides maximum funding capability for 2004 and 2005, then the first lift levees would be complete and much of the second lift and all structures can be completed. A closed system would be complete, except for some second lift levees, by the 2005 hurricane season. Of the recommended appropriations requested above for Lake Pontchartrain and Vicinity, about \$6,000,000 could be scheduled for the St. Charles Parish segment. Any reduction in the recommended budget would certainly reduce the amount that would be assigned to St.

Charles Parish and result in a disappointing slow down. Non-Federal funds for participation are in place now.

West Shore, Lake Pontchartrain & Vicinity, LA, St. John the Baptist Parish

This segment is currently under study with the Pontchartrain Levee District acting as local sponsor. Preliminary indications are the hurricane protection project will have 18 miles of levee and 3 drainage pump stations. The Feasibility Study should be completed in fiscal year 2004. Protection will be provided from the west levee of the Bonnet Carre Floodway westward to the LaPlace area, and will include protection of portions of I-10, I-55 and U.S. 51, designated hurricane evacuations routes for this area and the New Orleans Metropolitan area. This intersection has been previously flooded from storm tides.

Amite River & Tributaries, Bayou Manchac, LA

This investigation is being made as a result of a number of homes being flooded from rains produced by tropical storm Allison in late May and early June 2001 along the Bayou Manchac Watershed. A few homes remained flooded for as much as a month or more because of very slow receding waters. A highly sensitive area of Spanish Lake and surrounding swamp also remained flooded for an extensive period which caused extensive ecosystem damages. The affected area covers portions of Ascension, Iberville and East Baton Rouge parishes and all have joined with the Pontchartrain Levee District to provide non-Federal funding with the Levee District acting as local sponsor.

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 our pleadings. 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 this pattern will revert back to the 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.

PREPARED STATEMENT OF THE BOARD OF COMMISSIONERS OF THE PONTCHARTRAIN
LEVEE DISTRICT

MISSISSIPPI RIVER & TRIBUTARIES PROJECT

Project	Recommended
Mississippi River & Tributaries: Flood Control Project	\$435,000,000

COMMENTS ON PROJECTS

Mississippi River & Tributaries Flood Control Project

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 than \$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 safely 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.

PREPARED STATEMENT OF THE RED RIVER VALLEY ASSOCIATION

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.

The Resolutions contained herein were adopted by the Association during its 79th Annual Meeting in Bossier City, Louisiana on February 19, 2004, and represent the combined concerns of the citizens of the Red River Basin area as they pertain to the goals of the Association.

The President's budget included \$4.215 billion for civil works programs, which is \$700 million (14.3 percent) less than what the Corps expended in fiscal year 2004 (\$4.905 billion). 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 in fiscal year 2005. 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.

We are very concerned with the way in which the administration has determined what they term "low use waterways". Included in the fiscal year 2005 Civil Works Budget, published February 2004, is a table indicating "net benefits/current costs" and "remaining benefits/remaining costs". The J. Bennett Johnston Waterway, LA is shown at the bottom of the table with an unfavorable ratio. Nowhere in the document do they explain the criteria used for these ratios. This is the criterion used to justify the priorities to fund waterway projects and we do not agree with it.

If they are using "ton-miles", as we suspect, this is just a small factor of determining the success of a waterway. Ton-miles is simply the tons moved the length of the waterway. It does not give credit to the waterway for the miles moved to the final destination, for outbound cargo, or origin, for inbound cargo. Just using tonnage moved on a waterway neglects the main benefit that justified the project, transportation cost savings. Currently there is no analysis to consider "water compelled rates" (competition with rail). We know that there are industries not using our waterway because the rail rates dropped, to match the waterborne rates, the same year our waterway became operational. If our waterway were discontinued the rail rates would increase. Many industries have experienced great transportation savings without using the waterway.

The main problem is that there is no post-project evaluation for navigation projects. We support the development of such an evaluation and volunteer our waterway and our efforts to develop one. We request that both Houses of Congress direct that this be accomplished. The Corps of Engineers should take the lead to de-

velop a true evaluation that considers all benefits of a waterway. We also believe any evaluation adopted must have input from and be validated by the administration, Congress and industry.

The current criteria used to prioritize funding for projects, both Construction General and Operations and Maintenance, is incomplete and inaccurate. Too much money has been expended to use an evaluation that is unfair and disregards the true benefits realized from these waterway projects.

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, less expensive 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. The four public ports had a 20 percent increase in tonnage from calendar year 2002 to calendar year 2003. New opportunities were announced in calendar year 2003 at each of the ports, which will further increase annual tonnage. You are reminded that the Waterway is not complete, 6 percent remains to be constructed, \$118 million. We appreciate Congress's appropriation level in fiscal year 2004 of \$10.4 million, however, the President's fiscal year 2005 budget drastically cuts that to \$4 million, which is unacceptable. There is a capability for \$20 million of work, but we realistically must have a minimum of \$10–15 million to keep the project moving toward completion.

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 2003 we succeeded in getting electronic charts completed and they are now in use. Permanent channel markers have also been completed. Both of these initiatives will provide additional aids to navigation necessary to insure safe and efficient navigation, especially during high water events, when commercial operations have ceased in past years.

Now that the J. Bennett Johnston Waterway is reliable year round we must address efficiency. Presently a 9-foot draft is authorized for the J. Bennett Johnston Waterway. Our Waterway feeds into the Mississippi River, Atchafalaya River and Gulf Inter-coastal Canal, which are all authorized at a 12-foot draft. A 12-foot draft would allow an additional one-third cargo capacity, per barge, which will greatly increase the efficiency of our Waterway and reduce transportation rates. This one action would have the greatest, positive impact to reduce rates to a competitive level that would bring more industries to use waterborne transportation. 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 will be completed in calendar year 2004. We appreciate that Congress appropriated adequate funding to complete this study. 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 this navigation project, although not the total solution, will help revitalize the economy. We request funding \$400,000 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 2004 and request you fund this project at a level of \$10 million in fiscal year 2005.

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 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 safety standards. These levees do not have a gravel surface roadway, threatening their integrity during times of flooding. 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 which can create conditions for the levees to fail. A gravel surface will insure inspection personnel can check the levees during the saturated conditions of a flood. Funding has been appropriated and 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 2004. 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 \$2,500,000 to continue this important environmental monitoring and to complete plans and specifications 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. Due to siltation the available storage of water has been impacted. A \$750,000 reallocation study is requested to determine water distribution needs and raising the conservation pool. \$375,000 is requested in fiscal year 2005 to initiate this 2-year study.

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.

Our major project for O&M is the J. Bennett Johnston Waterway. From this project four public ports and three private terminals have been established. The tonnage at the public ports increased by 20 percent from calendar year 2002 to calendar year 2003. Even though we continue to show growth the administration continues to reduce our O&M budget and not include maintenance dredging. Without

dredging the Waterway would effectively close down terminating our ports and terminal. The President's budget included \$10,600,000; however, a minimum of \$14,000,000 is required to address our annual dredging needs and operational costs for the five locks and dams.

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.

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 2 previous fiscal years.

PREPARED STATEMENT OF THE CRESCENT CITY HARBOR DISTRICT

The Crescent City Harbor District is requesting \$3 million in funding in the fiscal year 2005 Energy and Water Development appropriations bill. These funds are needed for maintenance dredging of our harbor and for completing our Dredging Materials Management Plan.

Dredging funds are critical for the future of our harbor. Crescent City has long been a key port for the landing of Pink shrimp, Dungeness crab, and groundfish. In 2001, commercial landings exceeded \$6 million. In 2002, even with reduced fishing opportunities, our fleets landed over five and \$500,000 worth of seafood. The most recent Dungeness crab season, from December 2003 until the present, very likely set a record for production and value. Although some groundfish and Salmon species are at relatively low levels, many others are abundant. We look forward to harvesting the sustainable yield of our natural resources once the weaker stocks are rebuilt. But we must dredge the harbor now to take advantage of these future opportunities.

Over the years our community has made a substantial investment in the harbor. Our major dock is called "Citizens Dock" because it was built entirely by local volunteers in 1950. Since then, we have built a modern boat basin, fish processing plants, and a superb vessel repair facility. Our harbor is the safest, most convenient harbor in Northern California for both recreational and commercial fishermen. But the economic viability of these facilities depends on dredging the harbor.

Currently we are in the midst of developing a master plan that will help identify and then implement new opportunities to diversify the economic base of our harbor. Both the City of Crescent City and the County of Del Norte are actively supporting our master plan efforts. We hope to identify several opportunities that will expand and revitalize our struggling local economy. But the success of our planning process depends on dredging the harbor.

All our efforts, investments, and plans will come to nothing if we cannot dredge our harbor. We look forward to working together to ensure that dredging funds are in place in next year's appropriations cycle so that our harbor can remain a key part of the economy of Del Norte County and Northern California.

LETTER FROM THE ARIZONA POWER AUTHORITY

Phoenix, Arizona, March 23, 2004.

Senate Subcommittee on Energy and Water Development,
126 Dirksen Senate Office Bldg., Washington, DC 20510.

Re: Increased security costs at Reclamation, Corps of Engineers and Western Area Power Administration facilities

DEAR CHAIRMAN DOMENICI AND RANKING MEMBER REID: Enclosed please find a copy of a resolution passed by the Arizona Power Authority Commission at its March meeting urging that increased costs for security at Hoover Dam and similar Federal projects be made non-reimbursable. Would you please enter this letter and the attached resolution in the record of your proceedings.

Sincerely,

JOSEPH W. MULHOLLAND,
Executive Director.

ARIZONA POWER AUTHORITY RESOLUTION NO. 04-2

SECURITY COSTS AT HOOVER DAM AND OTHER FEDERAL POWER FACILITIES

Hoover Dam, one of the most famous structures in the world, is one of a number of Federal dams that were developed to provide benefits to millions of citizens in the Western United States, including flood control, irrigation, municipal and industrial water supplies, hydropower generation, recreation and environmental benefits.

Ensuring the safety and security of Hoover Dam and other similar Federal projects is of vital importance to all of the citizens of the United States.

The Arizona Power Authority and other State agencies and consumer-owned electric utilities already shoulder the majority of the reimbursable cost of these facilities, including subsidizing irrigation features, environmental programs, and repayment of the Federal debt associated with construction, operation, maintenance and replacements.

NOW THEREFORE, BE IT RESOLVED:

That the Commissioners of the Arizona Power Authority call upon the Federal Government to ensure that all costs associated with the safety and security of Hoover Dam and similar Federal facilities in the aftermath of the events of September 11, 2001, be treated as nonreimbursable and that payment of such costs be funded through Federal appropriations as a national obligation.

UNANIMOUSLY ADOPTED by the Arizona Power Authority Commission this sixteenth day of March 2004.

PREPARED STATEMENT OF THE ST. FRANCIS LEVEE DISTRICT OF ARKANSAS

EXECUTIVE SUMMARY

The Mississippi Valley Flood Control Association Fiscal Year 2005 Civil Works Budget, Mississippi River and Tributaries Appropriations—Requesting Appropriations of \$9,500,000 for Construction and \$8,805,000 for Maintenance and Operation in the St. Francis Basin Project and a total of \$450,000,000 for the Mississippi River and 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 flood control for 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 Nation-wide 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 \$450,000,000 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 \$9,500,000 for the St. Francis Basin Project construction funds and \$8,805,000 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 2005 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.

PREPARED STATEMENT OF THE CITY OF VIRGINIA BEACH, VIRGINIA

I am writing on behalf of the City of Virginia Beach, Virginia, to request funding for three critical projects in the fiscal year 2005 Energy and Water Development Appropriations Bill. These three projects are:

- \$7 million for the Virginia Beach Erosion Control and Hurricane Protection Project under the Construction account of the Army Corps of Engineers.
- \$5.5 million for the City's Beach Renourishment for Sandbridge Beach under the Construction account of the Army Corps of Engineers.
- \$1.25 million for the maintenance of Rudee Inlet under the Operation and Maintenance account of the Army Corps of Engineers.

VIRGINIA BEACH EROSION CONTROL AND HURRICANE PROTECTION PROJECT

Funding for this project was originally authorized under the Water Resources Development Act of 1992, and a Public Cooperation Agreement was reached and signed between the City and the Army Corps of Engineers in August 1993. The Water Resources Development Act of 1992 authorized \$112 million for Virginia Beach Erosion Control and Hurricane Protection project for the City.

To date, the Federal Government has invested over \$80 million for this project, matched by over \$40 million in City funds. The results of the investment are a magnificent beach and seawall system, providing flood damage protection for the City's tourism industry infrastructure, which is important for the economic vitality of the City. The resulting beach is a showpiece for the region.

The project has proven it works, most recently after Hurricane Isabel. The 100-year hurricane event protection level in this project did indeed protect the whole commercial beach area with no sustainable damage. If this project had not been in place there would have been huge losses.

The Federal Government has a long-term (50-year) commitment with the City to maintain this project. However, in the President's Fiscal Year 2005 Budget no funding was included. The Federal and City government have spent too much money to build this project to let it all go to waste by not renourishing the beach with sand for protection. It is important to maintain this project, both to protect the investments already made and to minimize damages from future storm events.

BEACH RENOURISHMENT FOR SANDBRIDGE BEACH

The Sandbridge Beach Replenishment project was created after decades of flood damage from storm events. Once the beach was replenished, flooding due to storms significantly decreased. The most recent example of the project's benefit is the reduced damage from Hurricane Isabel. Our request of \$5,500,000 is needed to honor the previous Federal commitments for the programmed maintenance of these projects.

The Sandbridge project was first approved by the Army Corps of Engineers and the North Atlantic Division of the Corps and subsequently authorized by Congress as a part of the Water Resources Development Act of 1992. The initial Public Cooperation Agreement was executed on February 3, 1998.

When the beach was first replenished in 1998, the City funded 100 percent of the total cost (\$8.1 million). In 2002, the City covered 35 percent of the cost while the Federal Government covered the remaining 65 percent (total of \$12 million). To date, the total amount of money invested (including City funds and funds from the Federal Government) is almost \$20 million.

As with the Hurricane Protection Project, the President's Fiscal Year 2005 Budget did not include funding for the Sandbridge Beach project. It is imperative that the City be able to maintain this project in order to protect the large number of family homes and rental properties in the area and minimize overall damages from future storm events. Today, only due to past efforts, Sandbridge is a vital and vibrant public beach.

RUDEE INLET

Rudee Inlet, which was authorized under the Water Resources and Development Act of 1992, is a vital commercial and recreational resource to the City. But its special significance from a Federal standpoint is that it is used by the U.S. Navy Special Operations for training and equipment testing. The Army Corps of Engineers has been maintaining Rudee Inlet since 1991.

Over the years there has been funding included in the President's budget for Rudee Inlet, however there was no funding included in the President's fiscal year 2005 budget. It is important to ensure that the inlet receives proper funding because failure to continue the maintenance on Rudee Inlet would negatively impact the City and the U.S. Navy special operations.

It is vital to the City of Virginia Beach that the Federal Government maintain funding for these projects. All businesses located in the City, including hotels and restaurants, along with recreational activities, military operations, and tourism would be negatively impacted without the proper maintenance of these projects.

I appreciate your time and consideration regarding this matter.

PREPARED STATEMENT OF THE SANTA CLARA VALLEY WATER DISTRICT

SOUTH SAN FRANCISCO BAY SHORELINE STUDY

Background.—Congressional passage of the Water Resources Development Act of 1976, originally authorized the San Francisco Bay Shoreline Study, and Santa Clara Valley Water District (District) was one of the project sponsors. In 1990, the U.S. Army Corps of Engineers (Corps) concluded that levee failure potential was low because the existing non-Federal, non-engineered levees, which were routinely maintained by Leslie Salt Company (subsequently Cargill Salt) to protect their industrial interests, had historically withstood overtopping without failure. As a result, the project was suspended until adequate economic benefits could be demonstrated.

Since the project's suspension in 1990, many changes have occurred in the South Bay. The State and Federal acquisition of approximately 15,000 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 and levee maintenance activities, which were assumed to be constant in the Corps' 1990 study. In addition to the proposed restoration project, considerable development has occurred in the project area. Many major corporations are now located within Silicon Valley's Golden Triangle, lying within and adjacent to the tidal flood zone. Damages from a 1 percent high tide are anticipated to far exceed the \$34.5 million estimated in 1981, disrupting business operations, infrastructure, and residences. Also, historical 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.

In July 2002, Congress authorized a review of the Final 1992 Letter Report for the San Francisco Bay Shoreline Study. The final fiscal year 2004 appropriation for the Corps included funding for a new start Reconnaissance Study.

Project Synopsis.—At present, large areas of Santa Clara, Alameda and San Mateo Counties would be impacted by flooding during a 1 percent high tide. The proposed restoration of the South San Francisco Bay salt ponds will result in the largest restored wetland on the West Coast of the United States, and also significantly alter the hydrologic regime adjacent to South Bay urban areas. The success of the proposed restoration is therefore dependent upon adequate tidal flood protection, and so this project provides an opportunity for multi-objective watershed planning in partnership with the California Coastal Conservancy, the lead agency on the restoration project. Project objectives include: restoration and enhancement of a diverse array of habitats, especially several special status species; tidal flood protection; and provision of wildlife-oriented public access.

Fiscal Year 2004 Funding.—\$100,000 was appropriated in fiscal year 2004 to conduct a Reconnaissance Study.

Fiscal Year 2005 Funding Request.—It is requested that the congressional committee support an appropriation add-on of \$500,000 for the South San Francisco Bay Shoreline Study to initiate a Feasibility Study to evaluate integrated flood protection and environmental restoration.

THOMPSON CREEK RESTORATION PROJECT

Background.—Thompson Creek, a tributary of Coyote Creek, flows through the City of San Jose, California. 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.

The upstream project limits start at Aborn Road and the downstream project limit is Quimby Road where Thompson creek has been modified as a flood Protection project. The project distance is approximately 1 mile.

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

	Date
Request Federal assistance under Sec. 206 Aquatic Ecosystem Restoration Program	Feb. 2002
Initiate Study	Jan. 2003
Public Scoping Meeting and Local Involvement	Sept. 2004
Final Detailed Project Report to South Pacific Division of Corps	May 2006
Initiate Plans and Specifications	July 2006
Project Cooperation Agreement signed	Dec. 2006
Certification of Real Estate	Mar. 2007
Advertise Construction Contract	May 2007
Complete Plans and Specifications	July 2007
Award Construction Contract	July 2007
Construction Start	Sept. 2007
Complete Physical Construction	Dec. 2008

Fiscal Year 2004 Funding.—\$100,000 earmark was received in the fiscal year 2004 Section 206 appropriation to complete the PRP.

Fiscal Year 2005 Funding Recommendation.—It is requested that the congressional committee support an earmark of \$300,000 within the Section 206 Aquatic Ecosystem Restoration Program.

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 was completed by the San Francisco District of the Corps in fiscal year 2002. The decision to continue onto a cost-shared feasibility study is currently delayed pending the Corps resolution of the flooding problems on the lower Pajaro River (Murphy's Crossing to the Ocean) and defining feasibility study goals that meet the interests of all Authority members.

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 2004 Funding.—\$100,000 was authorized in fiscal year 2004 for the Pajaro Watershed Feasibility Study.

Fiscal Year 2005 Funding Recommendation.—It is requested that the congressional committee support an appropriation add-on of \$100,000 in fiscal year 2005 for the Pajaro River Watershed Study.

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 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 an earlier study of Guadalupe River. 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 (NED) 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 NED 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 NED 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 NED 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. 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.

Fiscal Year 2004 Funding.—\$150,000 was authorized in fiscal year 2004 for the Upper Guadalupe River Project to continue preconstruction engineering and design.

Fiscal Year 2005 Funding Recommendation.—It is requested that the congressional committee support an appropriation add-on of \$3.5 million in fiscal year 2005 for the Upper Guadalupe River 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, 1998, and 2002. 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 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 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 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 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 2004 Funding.—\$250,000 was appropriated in fiscal year 2004 for the Llagas Creek Flood Protection Project for planning and design.

Fiscal Year 2005 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 \$1.35 million in fiscal year 2005 for planning, design, and environmental updates for the Llagas 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 2004 Funding.—No Federal funding was received in fiscal year 2004.
Fiscal Year 2005 Funding Recommendation.—It is requested that the congressional committee support an appropriation add-on of \$100,000 to initiate a multi-purpose Reconnaissance Study within the Coyote Creek Watershed.

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. However, due to funding constraints at the District and concerns raised by regulatory agencies, the design was stopped and turned over to the Corps to complete.

Fiscal Year 2004 Funding.—\$460,000 was appropriated in fiscal year 2004 for the Upper Penitencia Creek Flood Protection Project for project investigation.

Fiscal Year 2005 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 an appropriation add-on of \$535,000 million, in addition to the \$46,000 in the administration's fiscal year 2005 budget, for a total of \$600,000 for the Upper Penitencia Creek Flood Protection 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 2004 Funding.—\$250,000 was appropriated in fiscal year 2004 for the Coyote/Berryessa Creek Flood Protection Project to continue the General Reevaluation Report and environmental documents update.

Fiscal Year 2005 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.

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 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. 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. 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. 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.

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 organization, 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 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.

Fiscal Year 2004 Funding.—\$100,000 was appropriated to San Francisquito Creek in fiscal year 2004 to conduct a Watershed Reconnaissance Study.

Fiscal Year 2005 Funding Recommendation.—It is requested the congressional committee support an appropriation add-on of \$200,000 in fiscal year 2005 budget to initiate a Feasibility Study for the San Francisquito Creek Watershed.

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 2004 Funding.—\$14 million was authorized in fiscal year 2004 to continue Guadalupe River Project construction.

Fiscal Year 2005 Funding Recommendation.—It is requested that the congressional committee support an appropriation add-on of \$6 million, in addition to the \$6 million in the administration's fiscal year 2005 budget, for a total of \$12 million to continue construction of the final phase of the Guadalupe River Flood Protection Project.

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

Project	Request
Murrieta Creek Flood Control Project: Construction General	\$5,000,000
San Jacinto & Santa Margarita River Watersheds Special Area Management Plan (SAMP): General Investigations	1,000,000
Santa Ana River—Mainstem: Construction General	58,060,000

MURRIETA CREEK FLOOD CONTROL PROJECT

Murrieta Creek poses a severe flood threat to the cities of Murrieta and Temecula. Over \$12 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 provided \$1 million for a new construction start for this critical public safety project. Construction activities on Phase 1 of the project commenced in the Fall of 2003 and the Groundbreaking Ceremony was held on November 12, 2003. The appropriations for fiscal year 2004 allowed the Corps to continue construction on Phase 1 and initiate 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 2005. The District, therefore, respectfully requests the committee's support of a \$5 million appropriation in fiscal year 2005 so that the Corps may complete construction on Phase 1, complete the design work for Phase 2 and initiate construction on Phase 2 of the long awaited Murrieta Creek Flood Control, Environmental Restoration and Recreation Project.

SAN JACINTO & SANTA MARGARITA RIVER WATERSHEDS SPECIAL AREA MANAGEMENT PLAN

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 Project (RCIP) to determine how best to balance these factors. The plan will create regional conservation and development reserves that will 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 a Special Area Management Plan (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 permitting process 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 and multiple species habitat conservation 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. The \$200,000 appropriations received for fiscal year 2004 allowed for some of the management of the preparation of the NEPA document to continue.

Further funding is now needed to continue the SAMP effort. We, therefore, respectfully request that the committee support a combined \$1,000,000 appropriation of Federal funding for fiscal year 2005 for the Corps to continue its work on the Special Area Management Plan for the San Jacinto and Santa Margarita River Watersheds.

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 2005, an appropriation of \$4.46 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.

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 a fiscal year 2005 appropriation of \$4.3 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 \$5 million appropriation.

An appropriation of \$7.0 million is being requested to fund the required mitigation for the operation and maintenance of the Seven Oaks Dam project.

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 2005 appropriation of \$37.3 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 \$58,060,000 appropriation of Federal funding for fiscal year 2005 for the Santa Ana River Mainstem project including Prado Dam.

PREPARED STATEMENT OF THE STANDING ROCK SIOUX TRIBE

Project.—Standing Rock MRI and Irrigation Systems, Garrison Diversion Unit (Public Law 99–294).

Agency.—Corps of Engineers, Missouri Basin Pick Sloan, OMR.

FISCAL YEAR 2005 BUDGET REQUEST

The Standing Rock Sioux Tribe requests \$6,500,000 in the Corps of Engineers' budget for fiscal year 2005 for the Missouri Basin Pick Sloan Project from the operation, maintenance and replacement (OMR) account to reconstruct three intakes made inoperable by siltation caused by the operation of water levels in Lake Oahe in the months August through December 2003 as set out below:

Cannonball Irrigation Intake	\$2,000,000
Fort Yates Irrigation Intake	1,500,000
Fort Yates Municipal and Industrial Intake	3,000,000
Total	6,500,000

BACKGROUND

The construction and operation of Garrison and Oahe dams, principle components of the Missouri River Pick Sloan Program, by the Corps of Engineers has caused considerable damage to the Standing Rock Sioux Tribe of the Standing Rock Indian Reservation, North and South Dakota. The following activities have caused the siltation of three major intakes owned and operated by the Tribe for irrigation and domestic water use and threatens proposed downstream intakes:

- The construction of Garrison Dam, upstream from Lake Oahe, has caused the erosion of the bed and banks of the free flowing Missouri River between Garrison Dam and Bismarck;
- The construction of Oahe Dam and the filling of Lake Oahe has caused the deposition of sediment eroded from the bed and banks of the Missouri River between Garrison Dam and Bismarck at the upper end of Lake Oahe. This deposition has been estimated by the U.S. Bureau of Reclamation at 14,600 acre feet annually (equivalent to 560,000 acre of deposition over the past 40 years);
- Lowering the Lake Oahe water levels to historic minimums in fall 2003 caused the transport of sediments deposited in the upper end of Lake Oahe to more downstream locations in Lake Oahe within the Standing Rock Indian Reservation and inundated the Cannonball irrigation intake and the Fort Yates municipal, rural and industrial water intake, the principle source of domestic water supply for the Standing Rock Sioux Tribe, The Fort Yates irrigation intake was likewise stranded in fall 2003;
- The Cannonball irrigation intake was inundated with 11 feet of sediment between August and December 2003, and the Fort Yates municipal, rural and industrial water intake was rendered unusable by the deposition of sediment creating a water supply emergency for 10,000 members of the Standing Rock Sioux Tribe.

The Corps of Engineers was fully knowledgeable with respect to the erosion of the bed and bank of the Missouri River between Garrison Dam and Bismarck and the subsequent deposition of sediments on the Standing Rock Indian Reservation in the upper end of Lake Oahe as evidenced by the following documents, among others:

- Alfred S. Harrison and Warren J. Mellema, May 1984, Aggradation and Degradation Aspects of the Missouri River Mainstem Dams, MRD Sediment Series, Number 34, U.S. Army Corps of Engineers, Omaha District.
- Corps of Engineers, December 1983, Deposition at the Heads of Reservoirs, MRD Sediment Series, Number 31, Omaha District.
- Sedimentation and Channel Stabilization Section, November 1999, Sedimentation Impacts in the Cheyenne River Arm—Lake Oahe, Phase II, Projected to 2058, MRR Sediment Memorandum, 20, U.S. Army Corps of Engineers, Omaha District.
- U.S. Geological Survey, 1995, Transport and Sources of Sediment in the Missouri River between Garrison Dam and the Headwaters of Lake Oahe, North Dakota, May 1988 through April 1991 Water-Resources Investigations Report 95–4087.

The Standing Rock Sioux Tribe, pursuant to the Treaties of 1851 and 1868 possesses prior and superior rights to the use of water in the Missouri River, its tributaries and its aquifers for present and future purposes and has exercised those water rights for the present development of irrigation and domestic water supply

by the construction of intakes on the Missouri River where the natural channel of the river crosses the Standing Rock Indian Reservation, which intakes are submerged at the upper end of Lake Oahe.

DEPLETION OF TRIBES' FUNDS APPROPRIATED PURSUANT TO PUBLIC LAW 99-294, AS AMENDED

The Standing Rock MRI project funds (Public Law 99-294) have been depleted to make interim, emergency corrections to restore the drinking water supply for the Tribal membership and other residents served in Fort Yates, Cannonball, Porcupine and intermediate rural areas.

Questions also arise with respect to the viability of the new irrigation intake in the Kenel area where the next phase of the Public Law 99-294 irrigation project is to be implemented. It is not known how long an intake as far south as Kenel will be viable because the rate of progress of sediment movement from the upper to middle segments of Lake Oahe is not known. Kenel has been under consideration as a possible site for long-term MRI intake, but this option must be reevaluated after better information is in hand to determine if the migration of sediment will reach Kenel in the near term.

The cost of a long-term solution is not yet known. Far more information is needed on the phenomenon of sediment movement in Lake Oahe before a permanent location and elevation for a new intake can be established. Sound cost estimates can be prepared thereafter.

The Cannonball Irrigation Unit was to begin operation in spring 2004. It appears the Tribe will not be able to meet those expectations because 11 feet of silt now resides atop that intake. Funds for corrective measures at this site in fiscal year 2004 will further deplete the irrigation authority of Public Law 99-294 intended for development of additional parts of the 2,380 authorized acres.

STANDING ROCK SEDIMENT ANALYSIS IN LAKE OAHE

When Garrison Dam closed in 1955, a streamflow of 10,000 cubic feet per second (cfs) produced a water level elevation in the Missouri River downstream from the dam of approximately 1,676 feet above mean sea level. In 1990 a streamflow of 10,000 cfs produced a water level elevation in the Missouri River of approximately 1,668 feet, a decline in water level elevation of 8 feet. The reason for the decline in water level elevation for the same flow rate of 10,000 cfs was the excavation of the bed of the River below the dam. (See Figure 1 from the Corps of Engineers). With entrapment of all incoming sediment in the reservoir upstream from the dam, releases from the dam are free of sediment and have the capability to capture material from the bed and banks of the downstream river channel. Over a long period of time (1955 to 2003) this predictable activity has lowered the bed of the Missouri River and eroded the banks.

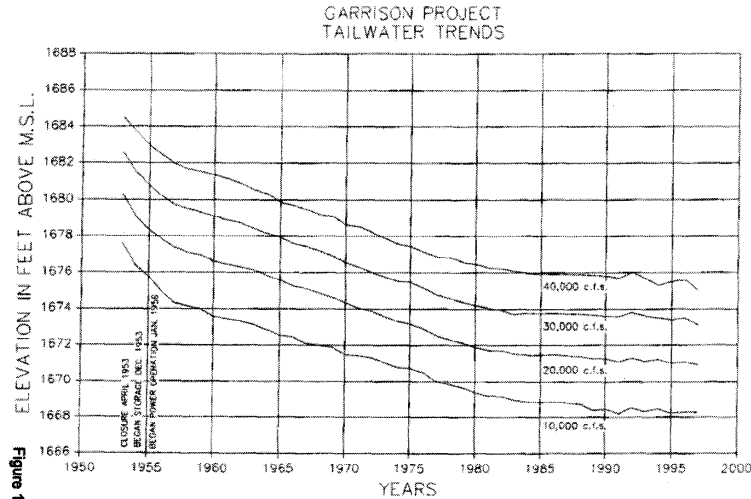


Figure 1- INDICATOR OF DECLINING RIVER BED (COE)

When Oahe Dam closed and began filling in 1962, material excavated from the Missouri River below Garrison Dam was deposited by the slowing velocity of the River as it entered the upper end of the Oahe pool. Over a 30-year period an unknown volume and tonnage of sediment was excavated upstream and deposited downstream from Bismarck. (See Figure 2 from USGS with independent modifications to show zones of excavation and deposition upstream and downstream from Bismarck, respectively.) The following statement confirms that Bismarck is near the transition between upstream excavation or “degradation” and downstream deposition or “aggradation” of the channel.

“ . . . there have been no marked changes in stage at this station [Bismarck] except for discharges of 30,000 cfs or greater, which have exhibited a slight upward trend . . . a study completed by the Corps [of Engineers] in 1985 ‘Oahe-Bismarck Area Studies’ indicated that aggradation has reduced the size of the channel in the study area, resulting in higher stages for the same discharge. The study concluded that for discharges of 50,000 to over 100,000 cfs, the stages have increased by 1 to 2 feet in the study area. It was also estimated that future aggradation will further increase stages for those discharges by an additional 0.8 to 1.4 feet.” (U.S. Geological Survey, 1995, Transport and Sources of Sediment in the Missouri River Between Garrison Dam and the Headwaters of Lake Oahe, North Dakota, May 1988 through April 1991, Water-Resources Investigations Report 95-4087).

During the drought of the last few years, including 2003, water levels in Lake Oahe fell from average elevations of 1,605 feet to historic minimums. Only in year 1990 had water levels reached as low (1,582 feet) as in 2003. In 2002, water levels in the October through December time frame reached averages of 1,584 feet. In November 2003, water levels reached as low as 1,576 feet, the lowest on record.

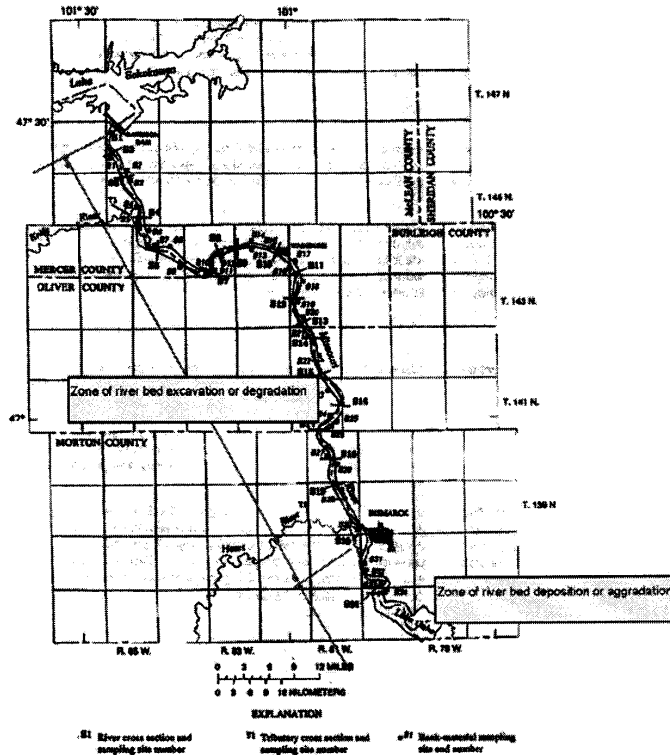


Figure 2. Location of study reach and river, tributary, and bank-material sampling sites along the Missouri River downstream from Garrison Dam.

4

Figure 2 – Map of Study Area (USGS WRI 95-4087) With Modifications

Sufficient information is not in hand (but should be available) to determine the elevation of the bed of the Missouri River before sediment began to accumulate in the upper end of Lake Oahe. When the intake for the Cannonball Irrigation Project was constructed in the late 1990's, the intake was placed underwater in the former channel of the Missouri River (the lowest point at that River-mile). The top of the intake screen was at 1,573 feet. Similarly, the intake for the Standing Rock MRI Project was reportedly constructed in the former channel of the River at a known elevation not available at the time of this writing.

Sediment moved downstream in fall 2003 as the reservoir levels in Lake Oahe were lowered and the Missouri River was required to flow across areas normally inundated and filled with sediment over the past 40 years. In this zone at the upper end of the lowered Lake Oahe, the Missouri River eroded artificially deposited sediments and moved them further downstream in the Reservoir. This caused the failure of the intake for the Tribe's MRI Project and deposited as much as 11 feet of sediment in the former Missouri River channel at the Cannonball intake site. Sediment has reached elevation 1,584 feet or 11 feet above the bottom of 1,573 feet measured at the irrigation intake in August 2003.

Elements of the phenomenon reported here have been studied by agencies of the United States, including the U.S. Geological Survey and the Corps of Engineers. It is believed that the Corps of Engineers knew or should have known that the low-

ering of water levels in Lake Oahe would cause the redistribution of sediments from the upper end of the Reservoir, where they knew sediments were deposited, to further downstream locations. At a minimum, the Tribe should have been notified in advance of the risk to its intakes as the Corps began its operations in the critical October to December period. Reasonable management of reservoir levels may have avoided the exigent conditions that existed for the Tribe in December and the considerable expense to redesign, reconstruct and relocate both MRI and irrigation intakes due to the releases from Garrison and management of water levels in Lake Oahe. When the emergency occurred, the Corps of Engineers increased releases from Garrison Dam from approximately 13,000 cfs (River stage at 4.2 feet) to 18,000 cfs (River stage at 6.2 feet), the most marked change in releases during the October to December 2003 time frame. (See Figure 3 from USGS).

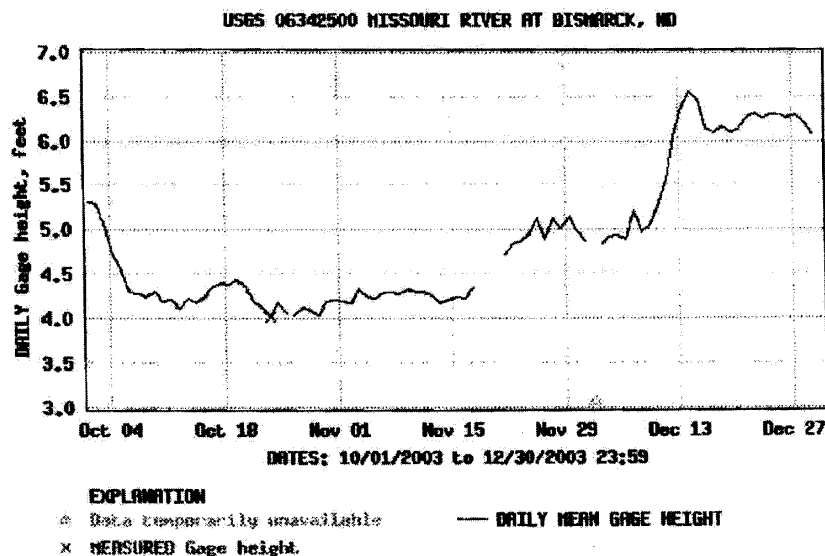


Figure 3 – Corps Response to Fort Yates MRI Exigency With Increased Flow Rate

Long-term solutions for the Tribe require collection of information not in the Tribe's hands and revision of the procedures for Garrison releases and management of Lake Oahe during drought conditions. Specifically, a sediment survey in the upper reaches of Lake Oahe is needed to document the current position of sediment deposits. Analysis is needed to determine where those deposits will move in the future and how the Tribe can locate and build dependable intakes. This problem affects at least two existing irrigation intakes (Cannonball and Fort Yates) and the MRI intake. The future irrigation intake at Kenel is also subject to an unknown level of risk. New operating procedures are needed that raised the minimum operating water levels. A diking system may be needed to contain upstream sediment.

The Corps of Engineers is the responsible Federal agency that constructed and operated the Federal facilities causing the degradation of the bed of the Missouri River, the aggradation of the upper end of Lake Oahe, and the redistribution of sediments in the upper end of Lake Oahe to the destruction of the Tribe's intakes in fall 2003. Legislation is needed to authorize the appropriation of funds to reconstruct new intakes of the Tribe in a manner to insure their dependability. Appropriate investigations will be needed of the baseline sediment conditions and the probable future redistribution in advance of permanent reconstruction. Mitigation measures and changes in the Master Manual are needed, including diking and new minimum operating water levels.

PREPARED STATEMENT OF THE CITY OF MORRO BAY

During World War II the Army Corps of Engineers (ACOE) designed and constructed a new harbor entrance at Morro Bay with two rock breakwaters. Since the

initial construction, over 60 years ago, the Federal Government has maintained the harbor entrance, breakwaters and navigational channels. In fiscal year 1995 the ACOE completed the Morro Bay Harbor entrance improvement project to improve safety for commercial fishing and coastal navigation.

The City of Morro Bay contributed almost \$1,000,000 in local cost share to the ACOE Entrance Improvement Project. Since 1995 the Federal Government has funded maintenance dredging of Morro Bay Harbor every year. The most cost-effective manner to conduct this dredging has been using the ACOE dredge Yaquina every year in the Entrance Area due to rapid shoaling in that area, and scheduling a larger project to maintain the Morro and Navy Navigation channels every 3 to 4 years as those channels accumulate sediment at a slower rate.

Below is a summary of dredging history for the federally designated navigation channels in Morro Bay.

Date	Area Dredged	Cubic Yardage
1997	Outer Entrance	63,009.00
1998	Entrance, Main, Navy, Morro & Sand Trap	579,692.00
1998	Entrance, Main	115,388.00
1999	Entrance & Transitional Channel	134,234.00
2000	Entrance & Transitional Channel	236,883.00
2001	Entrance & Transitional Channel	180,467.00
2002	Entrance, Navy, Morro & Sand Trap	868,483.10
2003	Entrance & Transitional Channel	170,817.00

Morro Bay Harbor is the only all-weather harbor of refuge between Santa Barbara and Monterey on the West Coast. Our Harbor directly supports almost 250 homeported fishing vessels and marine dependent businesses. We provide critical maritime facilities for both recreational and commercial interests. Businesses that depend on the harbor generate \$50,000,000 annually and employ over 700 people. The United States Coast Guard (USCG) maintains a 32 person National Security Base and Search and Rescue Station at Morro Bay Harbor to provide the Coast Guard services for the entire Central California Coast, including port safety coverage for the Diablo Canyon Nuclear Power Plant and Vandenberg Air Force Base.

In 2000 the California legislature designated Morro Bay and several other small ports along the California coast as "Harbors of Safe Refuge". This legislation recognizes the critical role many small harbors play in affording a safety zone for commercial and recreational vessels transiting the California coast.

Exposure to the open ocean and strong winter currents carrying sediment into the harbor create the need for a routine maintenance schedule to insure that the harbor entrance and federally designated navigation channels remain safe and navigable. The Morro Bay National Estuary Program recognizes the need to maintain the navigational channels in the harbor both for the viability of the commercial fishing industry and to maintain adequate tidal exchange for the health of the Morro Bay Estuary. It is imperative that the federally constructed navigation channels, entrance area and protective jetties be maintained to insure safe commerce and navigation on a 300-mile stretch of the California Coast and to maintain a safe port for the Coast Guard to operate from. Without continued Federal maintenance, all of the past local and Federal investment will be lost.

Last year the budget included \$1.4 million for dredging of the navigational channels including the Entrance Channel, the Navy Channel and the Morro Channel. This year the proposed budget eliminates all funding for the Morro Bay navigation channel maintenance dredging.

The Army Corps of Engineers has the capability to execute \$4.11 million in maintenance dredging operations for fiscal year 2005. The entrance area has shoaled significantly since the last dredge cycle and will require dredging next year to sustain safe navigation in our area. We respectfully request that your distinguished subcommittee include \$4.11 million in dredging funds for Morro Bay Harbor to keep our harbor open and safe in all conditions and to provide a safe base of operations for the United States Coast Guard.

In addition to being homeport to over 250 commercial fishing vessels, Morro Bay Harbor is part of the federally designated National Estuary Program. The Morro Bay Estuary was the subject of an ACOE reconnaissance study (funded by Congress in 1998) of potential projects to restore sensitive habitat through improving tidal circulation and decreasing sedimentation. The County of San Luis Obispo and the Bay Foundation are acting as local sponsors for the Feasibility Phase. We support the funding of \$250,000 to continue work on the feasibility study for the Morro Bay Habitat Restoration project in fiscal year 2005.

Thank you for your actions and support, and for the opportunity to present these requests to your subcommittee on behalf of the citizens of the City of Morro Bay.

PREPARED STATEMENT OF THE PORT OF SACRAMENTO, CALIFORNIA

The Port of Sacramento requests a fiscal year 2005 appropriation of \$8.5 million for the continued deepening of the Sacramento River Deep Water Ship Channel.

After a hiatus in construction, the Port has been actively working with the San Francisco District Corps of Engineers to reinvigorate this important project. The fiscal year 2005 appropriation will complete a Limited Re-Evaluation Report and provide funding to continue the deepening of the Ship Channel from 30' to 35'. This 5 additional feet will greatly expand the accessibility of the Port of Sacramento to the world fleet which will allow better service to existing customers and will improve the of diversify cargoes and customers, both which increase the revenues at the Port.

This project is vital to the economic future of the Port of Sacramento, which has provided international waterborne cargo services in the Greater Sacramento region for 40 years. In the future, California will also "re-discover" that its ports, and particularly its inland Ports, are an environmentally friendly alternative to the burgeoning highway traffic. "Short sea shipping" is concept in waterborne transportation that is increasing in application in Europe as a means to reduce highway congestion.

We would greatly appreciate your support of our appropriation request.

PREPARED STATEMENT OF THE WASHINGTON SUBURBAN SANITARY COMMISSION

ARMY CORPS OF ENGINEERS

Project	Request
Middle Potomac River Study	\$200,000
Patuxent River Watershed Study	200,000

WASHINGTON SUBURBAN SANITARY COMMISSION

The Washington Suburban Sanitary Commission (Commission or WSSC), established in 1918, is a public, bi-county agency providing water and wastewater services to Montgomery and Prince George's Counties in the Washington Capital region. WSSC is governed by six Commissioners with equal representation from each county and has developed its systems to the point where it is a national leader in the water and sewerage industry. The Commission is the among the ten largest water and wastewater utilities in the country, serving approximately 1.6 million people in a 1,000 square mile service area. In addition, the Commission provides services to 26 key Federal installations and facilities in the Washington area, including such important military facilities as Andrews Air Force Base; the National Imagery and Mapping Agency; the National Naval Medical Center; the Naval Surface Warfare Center; the U.S. Army Research Center. Numerous other State and local security-related installations and offices also receive service from the Commission.

Water treatment and distribution facilities operated by the Commission include three water supply reservoirs; two water filtration plants; 14 water pumping stations; 5,100 miles of water mains; and 54 treated-water storage facilities. Water production at Commission facilities is 166 million gallons per day. In terms of wastewater facilities, the Commission operates six wastewater treatment plants; 41 wastewater pumping stations; and approximately 4,900 miles of sewer mains.

MIDDLE POTOMAC RIVER STUDY

The Commission is committed to ensuring that the residents of the Montgomery and Prince George's Counties continue to have a clean, safe supply of drinking water. Consistent with that commitment is the need to improve that quality of the environment in the regions river basins and increase the ability to store water to meet increasing demand, particularly in times of drought.

The Corps of Engineers' Baltimore District (District) has recently completed a reconnaissance study of the water resources needs of the Middle Potomac River Watershed. The District found that there is a Federal interest in pursuing further study opportunities within the Middle Potomac study area and recommended that the study continue into the feasibility phase to begin the planning process for the

restoration of the Middle Potomac Watershed. One of the objectives identified for the feasibility phase was further study of the status of the region's water resources as they relate to water supply needs. One of the specific recommendations for further study is an effort to identify stresses on the Middle Potomac Watershed ecosystem at varying levels of water flows and the development of sustainable watershed management plans and planning tools. The Corps specifically mentioned WSSC as a potential non-Federal sponsor for this study. The Commission believes that such an effort, including an analysis of opportunities for additional water supply storage in the basin, is critical to the long-term health of the region. The Corps has estimated that the total cost of this feasibility study is \$3 million and the Commission supports an initial request of \$200,000 in fiscal year 2005 to begin conducting this study.

PATUXENT RIVER WATERSHED STUDY

The Commission owns and operates the Triadelphia and Rocky Gorge Reservoirs on the Patuxent River. Together these reservoirs hold 14 billion gallons of drinking water serving 700,000 people in Montgomery, Howard, and Prince Georges Counties in Maryland. Maintaining and improving the quality of the water in these reservoirs is a major objective of the Commission. The current buffer zones around these two reservoirs are relatively narrow. Expanding and restoring the habitat of these buffer zones would help ensure the long-term quality of the water in the reservoirs and also provide environmental benefits to the entire Patuxent River Basin. Improving the quality of the water in the Patuxent River would also prove beneficial to efforts to restore the health of the Chesapeake Bay.

In July of 1995, the Corps of Engineers completed the "Patuxent River Water Resources Reconnaissance Study", which was authorized by House Committee on Public Works and Transportation Resolution dated September 28, 1994. The purpose of the study was to develop a watershed plan for managing the water and related land resources of the Patuxent River watershed. The watershed plan that was developed addresses multi-purpose environmental solutions for the improvement of riparian, wetland, and aquatic habitat, improvements to water quality, recreation development and flood damage reduction measures. Among the actions recommended for implementation were riparian buffer projects and streambank protection and restoration projects. Such activities would reduce sedimentation and the runoff of pollutants.

The Commission believes that more detailed study of the areas around the Triadelphia and Rocky Gorge Reservoirs would be consistent with the watershed plan developed as part of the Patuxent River Water Resources Reconnaissance Study and could lead to environmental restoration activities that would prove beneficial to the entire region, including Chesapeake Bay. Therefore, the Commission supports a request of \$200,000 to conduct a feasibility study.

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 2005 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 \$43,300,000 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 are the inevitable result. More critically, larger storms generate back flows to Lake Michigan and pollute water supply for the six-county area. 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 101.5 miles of tunnels, constructed at a total cost of \$2.2 billion, are operational. 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 6 years of operation, O'Hare CUP Reservoir has taken water in 18 storm events, and yielded \$62.8 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, 741 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. 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 appreciate that the subcommittee has included critical levels of funds for these important projects. We were delighted to see the \$19,500,000 in construction funds for the McCook and Thornton Reservoirs included in the Fiscal Year 2004 Energy and Water Development Appropriations Act. In addition, an additional \$1,000,000 was included in the Fiscal Year 2004 Consolidated Appropriations bill. However, it is important that we receive a total of \$43,300,000 in construction funds in fiscal year 2005 to maintain the schedule of these critical 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 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. 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 2 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 \$43,300,000 in construction funds be made available in the Fiscal Year 2005 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 NAPA COUNTY FLOOD CONTROL AND WATER
CONSERVATION DISTRICT

SUMMARY RECOMMENDATIONS

Project	Funding request
Napa River Flood Control: Construction	\$20,000,000
Napa Valley Watershed Management: Feasibility Study	200,000

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, 27 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 leaders, 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 3 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 2004 Funding

The Fiscal Year 2004 Energy and Water Development Appropriations Act included \$10,000,000 to continue construction of the project. In addition, the Fiscal Year 2004 Consolidated Appropriations bill included \$2,750,000 for 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 \$110 million, as compared to Federal sponsor expenditures to date of approximately \$35 million.

Necessary Fiscal Year 2005 Funding

Funding for the Napa River Project during 2005 in the amount of \$20,000,000 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;
 - Construct two railroad bridges, one over the bypass and one over the Napa River and relocate approximately 3,100 feet of railroad track replacement;
 - 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 74 percent of the total project costs to date. By the end of June, 2003 the non-Federal sponsor will have expended \$110 million. By the end of June, 2004 the non-Federal sponsor will have spent \$130,000,000.

NAPA VALLEY WATERSHED MANAGEMENT

Background

The 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 Socol 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 2004 Budget Funding

The fiscal year 2004 Energy and Water Development Appropriations Act included \$200,000 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 2005 Funding

Funding for the Napa Valley Watershed Management Study during fiscal year 2005 in the amount of \$200,000 is needed to continue work on the Napa Valley Watershed Resource Analysis & Report. The purpose of this work is to provide a foundation assessment for resource allocation that improves the habitat and water quality in the Napa River watershed. This program was begun in fiscal year 2004. Prior year activities have included aerial photography/mapping of the watershed. This work has been successfully completed and is in use by Napa County, its residents,

resource groups and interested parties. It provides a Geographical Information System (GIS) base for the management of watershed information. Also previous watershed funding has developed an internet based information system, the Watershed Information Center (WIC). This web based communication allows the resources of watershed studies to be available to all interested persons. The system has been developed and is currently being put online for general use. These first activities of the Napa Valley Watershed Management Study are cornerstones of future watershed planning and enhancement.

PREPARED STATEMENT OF THE CITY OF ST. HELENA, CALIFORNIA

Project	Request
St. Helena NAPA River Restoration Project: (Section 206 Aquatic Ecosystem Restoration Program)	\$800,000
York Creek Dam Removal and Restoration Project: (Section 206 Aquatic Ecosystem Restoration Program) ...	800,000

CITY OF ST. HELENA

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 6,041. 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's 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 \$800,000 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 have 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, alternatives under consideration 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 to allow the continuation of the Detailed

Project Report can stay on schedule for the York Creek Dam Removal and Restoration Project.

PREPARED STATEMENT OF THE CALAVERAS COUNTY WATER DISTRICT

Project	Request
CALAVERAS COUNTY WATERSHEDS STUDY	\$1,500,000

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 but rapidly developing population and limited agricultural and industrial development. Calaveras County is located within the watersheds of the Mokelumne, Calaveras, and Stanislaus Rivers. All three 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 on-going Calaveras County Watersheds Study under the authority of the Corps of Engineers' Sacramento and San Joaquin Comprehensive Basin Study is 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 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 wastewater 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.

CALAVERAS COUNTY WATERSHEDS STUDY—UNDER THE AUTHORITY OF THE
SACRAMENTO AND SAN JOAQUIN COMPREHENSIVE BASIN STUDY

Project Need

The Calaveras County Watersheds Study CCWD is being pursued through the Corps of Engineers' program under the authority of the Sacramento and San Joaquin Comprehensive Basin Study and includes a review of project needs and opportunities within the Mokelumne River, Calaveras River and Stanislaus River Watersheds.

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. One of the overriding themes of the watershed study is to identify and maximize the use of District surface water resources on the Mokelumne, Calaveras and Stanislaus Rivers in conjunction with the groundwater supply to improve supply reliability.

Historically, groundwater has been used only to meet demands of scattered single family homes. This 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. 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.

In an effort to gain better understanding of the condition of the water sources, and issues and opportunities including flooding and the use of return flows, water supply and conjunctive use, as well as, the surrounding environment, the comprehensive watershed approach is being pursued.

While this is a watershed study, the approach is to focus in on the CCWD's stated priority areas to develop project resolutions. The first three critical project areas to be studied include the following: Cosgrove Creek, Wallace Lake Estates and the Burson area.

Cosgrove Creek

Cosgrove Creek is an intermittent stream within the Calaveras River watershed. The creek enters the lower Calaveras River downstream from the spillway of New Hogan Lake. During average precipitation years, stream flow is present from late fall through early to mid-summer.

Cosgrove is approximately 9.8 miles long and has a drainage area of 21 square miles. The upper two-thirds of the Cosgrove Creek watershed is used for grazing and the lower third has been subject to urban development. A portion of this lower reach, which passes through the adjacent communities of Valley Springs, La Contenta and Rancho Calaveras, has experienced many incidents of flooding and resulting damage to residential properties.

The objective of this effort is to produce a feasibility study on project alternatives for diverting Cosgrove Creek during peak flow periods to provide for flood protection while putting the diverted water to beneficial use. The solution will be a unique multiple purpose project in that it would both divert flood flows and put the yield to beneficial use for higher community needs such as creating wetlands and environmental restoration, and developing complementary recreational uses, such as ball fields and hiking or equestrian trails.

Wallace Lake Estates

Wallace Lake is located near the western edge of Calaveras County, just north of Highway 26. The lake is part of the Wallace Lake Estates subdivision.

Wallace Lake is also situated between East Bay Municipal Utility District's (EBMUD's) Camanche Reservoir and Mokelumne aqueduct. Qualitative observations have noted that, after filling, lake volume appears to diminish far more rapidly than would be expected. The Wallace Lake Community Services District would like to maintain the lake at full capacity all year. It is reported that pumping well water into the lake does not maintain desired levels. This has led to speculation regarding the possibility that, if the lake is percolating into the local groundwater table, this could be an attribute that could intentionally be put to use to facilitate groundwater recharge and development of a conjunctive use project.

The primary focus of this study is to assess both the local hydrogeological conditions with respect to using the lake for groundwater recharge and the means of transporting Mokelumne River water to the lake.

The objective of this investigation is to produce an assessment and feasibility study as a basis for developing project alternatives for bringing Mokelumne water to Wallace Lake and the viability of utilizing the lake for the purpose of demonstrating a groundwater infiltration gallery, as well as environmental restoration.

Burson Area

Most of the area within Calaveras County north of Highway 12 and south of the Mokelumne River, including the Burson area, is currently wholly dependent upon groundwater and has experienced critical water shortages for the last 20 years. Issues include low volume or no water at all in some wells and degradation of water quality involving taste, smell and chemical contamination. The problems have continued to worsen.

One possible alternative project solution is conjunctive use of Mokelumne River water to recharge the groundwater basin with high quality surface water. (It appears unlikely that use of Wallace Lake for recharge purposes will assist this particular area of need.)

A second alternative is to investigate the possible presence of and potential use for high yielding zones, including an ancient underground river within the defined aquifer area, that could be tapped without detrimentally impacting existing users. These project alternatives would include an environmental restoration component. The objective of this investigation is to produce an assessment and feasibility study as a basis for developing a drinking water system for the Burson area of Calaveras County.

CCWD is working closely with the Sacramento Corps District in the development of a Feasibility Cost Sharing Agreement in order for the Calaveras County Watersheds Study to advance and for these projects to proceed. In an effort for the feasi-

bility study to move towards project formulation, CCWD is seeking \$1.5 million for the Calaveras County Watersheds Study, as a separately identified effort under the authority of the Sacramento and San Joaquin Comprehensive Basin Study, in the Fiscal Year 2005 Energy and Water Development Appropriations Bill.

PREPARED STATEMENT OF CAMERON COUNTY, TEXAS

We express full support of the inclusion in the fiscal year 2005 budget for the full capability of the USACE for \$831,000.

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.

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 would allow 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 could foresee the terrible accident that occurred on September 15. 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. The \$831,000 that must be added to the fiscal year 2005 appropriations bill will allow the Corps of Engineers to continue to study a preferred plan to remedy this dangerous situation. The government has already invested \$400,000 to move this project forward. 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 BRAZOS RIVER HARBOR NAVIGATION DISTRICT

We express full support of the inclusion in the fiscal year 2005 budget for the full capability of the USACE of \$700,000.

President's budget included \$300,000.

Additional funds needed for fiscal year 2005 \$400,000.

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, 5 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. The fiscal year 2003 budget fully funded the Corps capability of \$500,000 to begin the feasibility study. The fiscal year 2004 budget included \$250,000 with an additional \$250,000 reprogrammed by the USACE to continue the feasibility study without delay.

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 sixteenth in foreign tonnage in the United States and twenty-fourth in total tonnage. The port handled over 25 million tons of cargo in 2003 and an additional 75,000 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 2005

The administration's budget included \$300,000 for the continuation 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 2005 of \$700,000 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 \$400,000 for fiscal year 2005. Most Corps projects indicate a 10 to 1 and below benefit to cost ratio. This project estimates nearly twice that benefit to cost ratio and deserves to be tagged a "priority project".

PREPARED STATEMENT OF THE CHAMBERS COUNTY-CEDAR BAYOU NAVIGATION DISTRICT

We express full support of the inclusion of the full capability of the USACE for fiscal year 2005 to complete PED for the project to deepen and widen Cedar Bayou, Texas.

President's Budget Included \$135,000.

Additional Funds Needed in Fiscal Year 2005 \$311,000.

HISTORY AND BACKGROUND

The Rivers and Harbor Act of 1890 originally authorized navigation improvements to Cedar Bayou. The project was reauthorized in 1930 to provide a 10 ft. deep and 100 ft. 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 ft. by 125 ft. 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 and \$374,000 in fiscal year 2004 to support the feasibility study. This project is environmentally sound and economically justified. We would appreciate the subcommittee's support of the required add of the \$311,000 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 NATURE CONSERVANCY

Mr. Chairman and members of the subcommittee, I appreciate this opportunity to present The Nature Conservancy's recommendations for the Army Corps of Engineers and Bureau of Reclamation's fiscal 2005 appropriations. We understand and appreciate that the subcommittee's ability to fund programs within its jurisdiction

is limited by the tight budget situation 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 27 foreign countries. We have protected more than 15 million acres in the United States and approximately 102 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 Conservancy urges the subcommittee to support the following appropriation levels in the fiscal 2005 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 Conservancy is the non-Federal cost share partner on nine Section 1135 projects including Spunky Bottoms, a flood-plain restoration/reconnection project on the Illinois River, for which we seek an earmark in the amount of \$200,000 in fiscal 2005. This program is in extremely high demand and severely oversubscribed in fiscal 2004 with millions of dollars of requests beyond what was appropriated. This financial shortfall has stopped many projects. The Conservancy strongly encourages full funding of \$25 million for the Section 1135 program in fiscal 2005, an increase over the President's \$13.5 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 Conservancy is the non-Federal cost-share partner on four Section 206 projects. These projects restore important fish and wildlife habitats, including a \$5 million project at Mad Island in Texas, and a \$1.4 million riparian habitat restoration project at Bootheel Creek in Florida. This program is in extremely high demand and severely oversubscribed in fiscal 2004 with millions of dollars of requests beyond what was appropriated. This financial shortfall has stopped many projects. The Conservancy strongly encourages full funding of \$25 million for this valuable program in fiscal 2005, an increase over the President's \$10 million request.

Upper Mississippi River System Environmental Management Program.—The Environmental Management Program (EMP) is an important Corps program that constructs habitat restoration projects and conducts long-term resource monitoring of the Upper Mississippi and Illinois Rivers. The EMP operates as a unique Federal-State partnership affecting five States (Illinois, Iowa, Minnesota, Missouri, and Wisconsin). The EMP was reauthorized in WRDA 1999 with an increased authorization in the amount of \$33.2 million. The Conservancy supports full funding of \$33.2 million for fiscal 2005, an increase over the President's \$28 million request.

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 Conservancy supports \$10 million in fiscal 2005. This program was not included in the President's budget.

Florida Keys Water Quality Program.—The Florida Keys Water Quality Program is a unique restoration program designed to protect the Florida Keys' fragile marine and coral ecosystem. This nationally significant 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 million for fiscal 2005. This program was not included in the President's budget.

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 Conservancy supports the President's \$69 million request for fiscal 2005.

GENERAL INVESTIGATION PRIORITIES

Middle Potomac River Watershed Study.—The preliminary Middle Potomac Watershed Section 905(b) analysis identified 14 feasibility studies to address flood control needs and environmental restoration opportunities within the Middle Potomac Watershed. The study team identified three study goals for the development of project management plans: (1) to conserve, restore, and revitalize the Potomac River basin; (2) to develop sustainable watershed management plans; and (3) to cooperate with and support public and private entities in developing watershed management plans. The Conservancy supports \$1 million in fiscal 2005 to continue the development of these plans. This study was not included in the President's budget.

Savannah 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 Corps and its cost share partners Georgia and South Carolina, developed a set of ecosystem flow recommendations for the Savannah River Basin. A test release of the new flow recommendation was conducted March 15–18, 2004. The Conservancy supports \$436,000 in fiscal 2005, an increase over the President's \$250,000 request.

REGULATORY PROGRAM PRIORITIES

Southern California Special Area Management Plan (SAMP).—For the past 4 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 significant natural resources and 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 Conservancy supports a \$2 million earmark within the Corps' regulatory program for fiscal 2005.

BUREAU OF RECLAMATION PRIORITIES

Recovery Implementation Program for Colorado Endangered Fish Species.—The Recovery Program is in its fourteenth 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 Conservancy supports \$4 million in fiscal 2005 for the Bureau of Reclamation's portion of this multiagency program.

Thank you for the opportunity to present The Nature Conservancy's comments on the Energy and Water 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 me.

DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

PREPARED STATEMENT OF THE COLORADO RIVER BOARD OF CALIFORNIA

Your support and leadership are needed in securing adequate fiscal year 2004 funding for the Department of the Interior with respect to the Federal/State Colorado River Basin Salinity Control Program. Congress has designated the Depart-

ment of the Interior, Bureau of Reclamation (Reclamation) to be the lead agency for salinity control in the Colorado River Basin. This successful and cost effective program is carried out pursuant to the Colorado River Basin Salinity Control Act and the Clean Water Act. California's Colorado River water users are presently suffering economic damages in the hundreds of million of dollars per year due to the river's salinity.

The Colorado River Board of California (Colorado River Board) is the State agency charged with protecting California's interests and rights in the water and power resources of the Colorado River System. In this capacity, California along with the other six Basin States through the Colorado River Basin Salinity Control Forum (Forum), the interstate organization responsible for coordinating the Basin States' salinity control efforts, established numeric criteria in June 1975, for salinity concentrations in the River. These criteria were established to lessen the future damages in the Lower Basin States, as well as, assist the United States in delivering water of adequate quality to Mexico in accordance with Minute 242 of the International Boundary and Water Commission. The goal of the Colorado River Basin Salinity Control Program is to offset the effects of water resource development in the Colorado River Basin after 1972 rather than to reduce the salinity of the River below levels that were caused by natural variations in river flows or human activities prior to 1972. To maintain these levels, the salinity control program must remove 1,800,000 tons of salt loading from the River by the year 2020. In the Forum's last report entitled 2002 Review, Water Quality Standards for Salinity, Colorado River System (2002 Review) released in October 2002, the Forum found that additional salinity control measures that remove salt from the River in the order of 1,000,000 tons are needed to meet the implementation plan. The plan for water quality control of the River has been adopted by the States and approved by the Environmental Protection Agency. To date, Reclamation has been successful in implementing projects for preventing salt from entering the River system; however, many more potential projects for salt reduction have been identified that can be controlled with Reclamation's Basin-wide Salinity Control Program. The Forum has presented testimony to Congress in which it has stated that the rate of implementation of the program beyond that which has been funded in the past is necessary.

In 2000, Congress reviewed the salinity control program as authorized in 1995. Following hearings, and with the administration's support, the Congress passed legislation that increased the ceiling authorization for this program by \$100 million. Reclamation has received proposals to move the program ahead and the seven Basin States have agreed to up-front cost sharing on an annual basis, which adds 43 cents for every Federal dollar appropriated.

In previous years, the President has supported, and Congress has funded the Bureau of Reclamation's Basinwide Salinity Control Program at about \$12 million. The Forum has indicated that the President's request for funding for fiscal year 2005 in the amount of \$9,064,000 is inappropriately low. The Forum has requested a total of \$17.5 million for fiscal year 2005 to implement the needed and authorized program. The Colorado River Board supports the Forum's recommendation and believes that failure to appropriate these funds may result in significant economic damages in the United States and Mexico. Water quality commitments to downstream U.S. and Mexican users must be honored while the Basin States continue to develop their Compact apportioned waters from the Colorado River. For every 30 mg/l increase in salinity concentration in the River, there is \$75 million in additional damages in the United States.

Based upon past appropriations, implementation of salinity control measures has fallen behind the needed pace to prevent salinity concentration levels from exceeding the numeric criteria adopted by the Forum and approved by the EPA. The seven Colorado River Basin States have carefully evaluated the Federal funding needs of the program and have concluded that an adequate budget is needed for the plan of implementation to maintain the salinity standards for the River. With the newly authorized USDA EQIP program, more on-farm funds are available and adequate funds for Reclamation are needed to maximize Reclamation's effectiveness. The Forum, at its meeting in San Diego, California, in October 2002, recommended a funding level of \$17,500,000 for Reclamation's Basinwide Salinity Control Program to continue implementation of needed projects and begin to reduce the "backlog" of projects.

In addition, the Colorado River Board recognizes that the Federal Government has made significant commitments to the Republic of Mexico and to the seven Colorado River Basin States with regard to the delivery of quality water to Mexico. In order for those commitments to be honored, it is essential that in fiscal year 2005 and in future fiscal years, that Congress provide funds to the Bureau of Reclamation for the continued operation of completed projects.

The Colorado River is, and will continue to be, a major and vital water resource to the 17 million residents of southern California. Preservation of its water quality through an effective salinity control program will avoid the additional economic damages to users in California.

The Colorado River Board greatly appreciates your support of the Federal/State Colorado River Basin Salinity Control Program and again asks for your assistance and leadership in securing adequate funding for this program.

PREPARED STATEMENT OF THE DEPARTMENT OF NATURAL RESOURCES, STATE OF
UTAH

As the Governor of Utah's representative on Colorado River Issues and the senior Utah member of the Colorado River Salinity Control Forum, I wish to convey Utah's support for funding the Salinity Title II Program, authorized in 1995 (Public Law 104-20) at the level of \$17,500,000 for 2005 for the United States Bureau of Reclamation (BOR). In addition, Utah requests funds be provided the BOR for General Investigations and the Operation and Maintenance of salinity facilities at sufficient funding levels to meet the objectives of the Salinity Control Act as amended.

This vital program has been a mainstay in improving water use efficiency in the Colorado River Basin of Utah. During the past 5 years of drought, the facilities funded by the BOR program have been a significant reason for agriculture in the Uinta and Price/San Raphael basins maintaining productivity and stimulating these rural economies.

In addition, the Salinity Control Program helped to meet the salinity related water quality standards for the Colorado River and U.S. treaty obligation with Mexico. This important program helps meet national and international obligations and needs to be funded at the \$17,500,000 level with additional funds for investigations and operation and maintenance.

Thank you.

PREPARED STATEMENT OF THE IRRIGATION & ELECTRICAL DISTRICTS' ASSOCIATION OF
ARIZONA

We are pleased to present this written testimony on behalf of our 25 members and associate members which serve water and power from the Colorado River and other sources to rural and urban Arizona communities, farms and businesses. Our comments are directed to the budgets of the U.S. Bureau of Reclamation (Reclamation) and the Western Area Power Administration (Western), whose budget requests we generally support with certain specific reservations, which we will note.

BUREAU OF RECLAMATION

We do not support the proposed Reclamation budget as to four specific items: Security Costs, Animas-La Plata, Yuma Desalter, and Central Arizona Project Tucson Reliability Division.

Security Costs.—We oppose the shift of approximately \$12 million for guards and surveillance to reimbursable status. Congress has approved this post-9/11 expense increase as non-reimbursable for the last 2 years. This change unfairly saddles local power and water users in some projects with the costs of this national obligation. If the Homeland Security budget can provide in excess of \$3 billion (fiscal year 2004) for the Nation's airports, surely the West's premier Reclamation dams deserve the same treatment. We endorse and support the testimony of the Colorado River Energy Distributors' Association (CREDA) on this subject.

Animas-La Plata.—This project requires some \$10 million for electric transmission system construction. We join CREDA in requesting that this amount not be imposed on Colorado River Storage Project power contractors whose customers will derive no benefit from this facility. Forcing them to pay for this non-irrigation use facility will constitute a serious departure from over 100 years of Reclamation law.

Yuma Desalter and Tucson Reliability Division.—We support the testimony of the Central Arizona Water Conservation District (CAWCD) generally, and specifically on these subjects. Without the Desalter, Central Arizona's 4.5 million people will continue to be penalized some 100,000 acre-feet per year of water supply due to the Central Arizona Project's junior status as a Colorado River water user. Additionally, Reclamation needs to request Tucson Reliability Division funds only after consultation with CAWCD and not jeopardize its pending lawsuit settlement and the associated Gila River Indian Settlement.

WESTERN AREA POWER ADMINISTRATION

Our comments on Western's budget will track the order in which the subjects appear in Western's budget justification document.

Use of Receipts.—We oppose Use of Receipts authority for Western at this time. Western has offered no check and balance proposal to substitute for reduced Congressional oversight. Retail competition in the West is problematic, to say the least, and the bare notice and comment Western rate process has never generated effective cost control. Moreover, Western believes it has the authority to require advance funding in its contracts (Federal Register 5/5/03). If true, contract renewals and amendments will gradually shift Western totally off-budget.

Security Costs.—Western's \$1.4 million in security costs should be non-reimbursable for the same reasons that Reclamation's should be. As a dichotomy of a former uniform Reclamation program, Western's role is tied to Reclamation's. It is hard to believe that over 17,000 miles of Federal transmission system do not rise in importance to a national obligation, given the essential place this system occupies in 15 Western States.

Quartzsite Line Relocation.—We oppose this expenditure at this time. There is no electrical need for this action. Alternative routes are still being negotiated with the Bureau of Land Management and the necessary environmental clearance processes haven't even started. The encroachments have existed for many years without incident. This project should be postponed until Western identifies an electrical need, a negotiated route, and a true cost estimate based on that route.

Transmission Lines.—The Black Point Mesa—Blythe No. 1 request may be insufficient since the Fish and Wildlife Service is insisting that Western purchase land for the Desert Tortoise in southeastern California because Western wants to replace aging wood poles (a routine operation and maintenance function) in an area that is not critical habitat for this species.

South of Phoenix.—We vigorously support work programmed for substations in this portion of Western's Parker-Davis Project transmission system. The area in question is growing like Topsy and Western's integrated facilities are aged and undersized. Congress has earmarked funds for this work for the last 3 years.

Davis-Mead, Davis-Topock.—We would oppose the addition of any reimbursable construction funding for this line replacement using the 3M aluminum matrix composite conductor. Adding this cost would more than double Western's rehabilitation and construction budget. We anticipate a request for this expenditure. If done as a non-reimbursable experiment, we would not object. We note, however, that replacing one line yields little extra capacity since reliability standards require the new line to carry no more power than the second adjacent line could absorb in a first line outage.

Purchase Power and Wheeling.—Once again, Western proposes chopping funding for this vital activity even though Congress has repeatedly provided the funding. The scoring problem has been fixed. There is no sound policy reason for not funding this activity. The position that somehow small public power, Indian and other customers can magically find over \$200 million to borrow and/or advance fund this critical firming program is absurd. Most of Western's customers are small and resource limited. Western can't be allowed to summarily abandon them to their fate.

Thank you for the opportunity to present our views. Please feel free to get in touch with us if we can be of any further service, answer any questions, or supply additional detail on our comments.

PREPARED STATEMENT OF THE GARRISON DIVERSION CONSERVANCY DISTRICT

Mr. Chairman and members of the committee, my name is Dave Koland; I serve as the manager of the Garrison Diversion Conservancy District. The mission of the District 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 the District. I would like to comment on the impact the President's fiscal year 2005 budget request for the Garrison Diversion Unit has on the effort to provide reliable, high quality and affordable water supplies to the citizens of North Dakota.

The President's fiscal year 2005 budget request was pitifully inadequate in meeting the commitments the Federal Government has made to North Dakota. In return for accepting a permanent flood on 500,000 acres of prime North Dakota river valley the Federal Government promised the State and tribes that they would be compensated as the dams were built. The dams were completed 50 years ago and still we wait for the promised compensation. At the rate of payment the President's

budget proposes the Federal Government will not even be able to stay current with the indexing applied by law on their commitment to North Dakota.

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 State-wide MR&I program has focused on providing grant funds for water systems that provide water service to previously 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 that has been 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

More importantly, people are living 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. Rural communities offer the experiences and lifestyle many people seek to raise their family.

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 design and 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 being affected by the problem. The 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 has 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), providing system design oversight 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 very 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. Engineering services are typically provided by local firms that have experience in designing and constructing systems in North Dakota.

Across North Dakota, we have seen the impact of providing high quality 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 just a dream in many rural North Dakota communities. Turning on the tap each morning brings brown, smelly water instead of the clear, fresh water a majority of people in North Dakota enjoy.

The opportunity to have an impact in 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 that is 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.

Indeed the MR&I program in North Dakota would 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 2005 budget submission of \$828.5 million for the Bureau of Reclamation's Water and Related Resources program is \$57.5 million better than their request for fiscal year 2004. It is \$171.5 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 1990's 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 that the current level of funding will have on the current program.

Attachment 1 shows the funding history over the last 8 years for the Garrison Diversion Unit. The average is approximately \$26.6 million. The President's budget request for fiscal year 2005 is \$22.1 million. A continuation of that 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 the price increases expected in the 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 \$6.9 million. 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 \$77.3 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 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 \$22 million annually when you include underfinancing. 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. It is our intent that

each program reaches the conclusion of the funding authorization at 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. They generally run in the \$20 million category. Some are, of course, smaller and others somewhat larger, but one that is considerably larger is the Northwest Area Water Supply Project (NAWS). The first phase of that 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 that program is \$43 million. On the average, the annual funding for that 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 it is not, we simply run the cost up 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 but also by protracting the engineering and administration costs and "interest-during-construction" 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 greater 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.

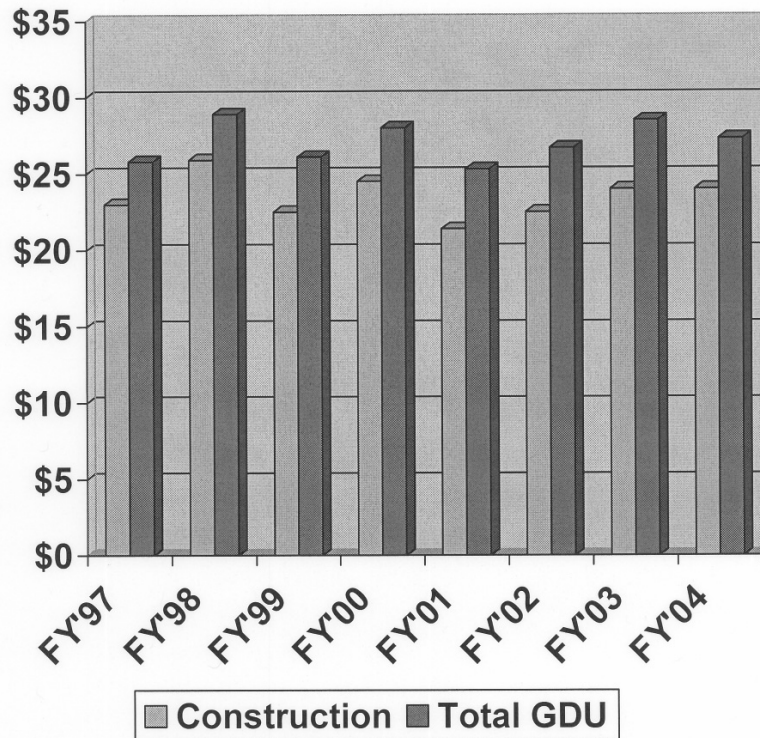
Using these two projects as examples frames the argument for a steadily increasing budget. First, to accelerate the MR&I program in early years to assure the timely completion of the NAWS project and then to ready the budget for a smaller MR&I allocation when the RRV project construction begins.

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. That 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 the 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. A smoother, more efficient construction program over time will be the result.

Attachment 5 shows such a program. It begins with a \$77.3 million budget this year and gradually builds over time to over \$140 million when the RRV construction could be in full swing (fiscal year 2010). 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 \$171.4 million in fiscal year 2005 to a total of \$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. This cost-effective partnership of local control, State-wide guidance and Federal support have combined to provide safe, clean, potable water to hundreds of communities and thousands of homes across North Dakota.

GDU Funding History



ATTACHMENT 2.—GARRISON DIVERSION UNIT (GDU) JUSTIFICATION FOR \$77.3 MILLION
APPROPRIATION FISCAL YEAR 2005

North Dakota's Municipal, Rural and Industrial (MR&I) water program funds construction projects State-wide under the joint administration of the Garrison Diversion Conservancy District (GD CD) and the State Water Commission (SWC).

Northwest Area Water Supply Project (NAWS) is under construction after 15 years of study and diplomatic delay. Construction costs are estimated to be \$81 million.

Designs are based on a 5-year construction period; thus, over \$16 million is needed for NAWS alone. Indian MR&I programs are also under construction. Tribal and State leaders have agreed to split the Indian and non-Indian MR&I allocation on a 50/50 basis.

Williston Water Treatment Plant, Williams Rural Water and Tribal MR&I programs are under construction.

[In millions of dollars]

	Amount
Operation and Maintenance of Indian MR&I Systems plus Jamestown Dam	3.4
Breakdown of \$73.9 million Construction Request:	
Operation and Maintenance of existing GDU system	5.0
Wildlife Mitigation & Natural Resources Trust	6.0
Red River Valley Special Studies and EIS	2.6

[In millions of dollars]

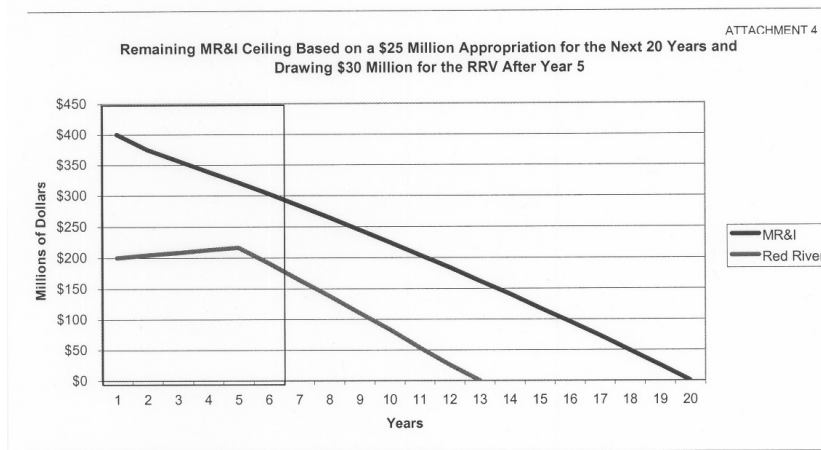
	Amount
Indian and non-Indian MR&I	50.0
Indian Irrigation	2.7
Recreation	0.6
Under financing 10 percent	7.0
Total for Construction	73.9
Grand Total	77.3

**ATTACHMENT 3.—ELEMENTS OF THE BASE OPERATIONS PORTION OF THE GARRISON
DIVERSION UNIT BUDGET FISCAL YEAR 2005**

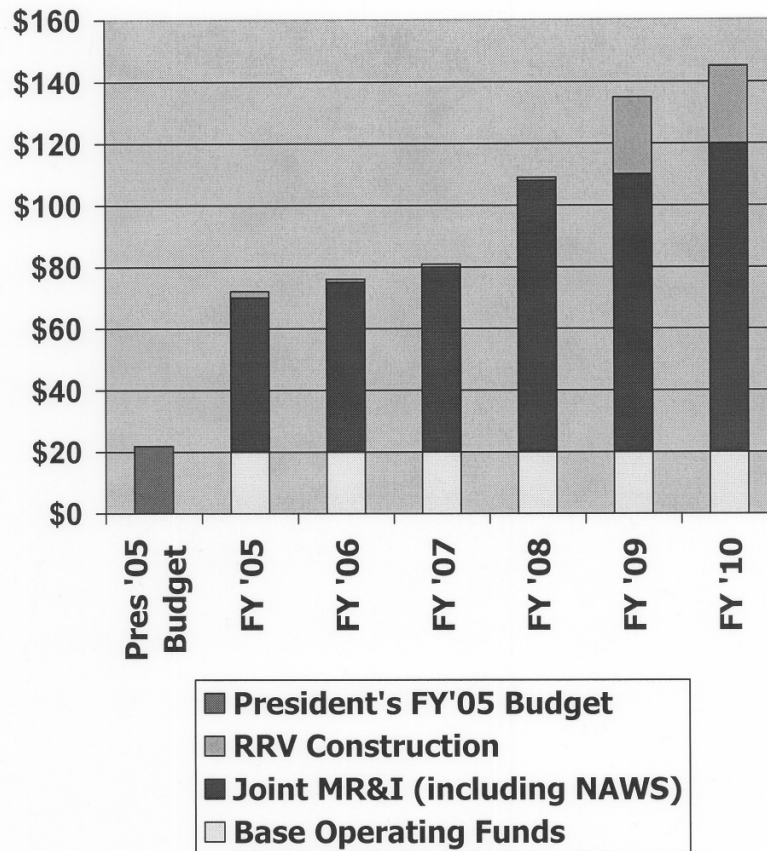
[In millions of dollars]

	Amount
Operation and Maintenance of Indian MR&I systems and Jamestown Dam	3.4
Operation and Maintenance of Existing GDU facilities	5.0
Wildlife Mitigation & Natural Resources Trust	6.0
Red River Valley Special Studies and EIS	2.6
Indian Irrigation	2.7
Recreation	0.6
Under financing at 10 percent	2.0
Total	22.3

ATTACHMENT 4



GDU Annual Appropriations



PREPARED STATEMENT OF THE PROVO RIVER WATER USERS ASSOCIATION

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

These funds are authorized by Public Law 106–392. Substantial non-Federal cost sharing funds are provided by the States of Colorado, Wyoming, Utah, and New Mexico, power users, and water users in support of these recovery programs. These programs are carried out consistent with State law and interstate water compacts.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE DUCHESNE COUNTY WATER CONSERVANCY DISTRICT

I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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PREPARED STATEMENT OF THE JORDAN VALLEY WATER CONSERVANCY DISTRICT

I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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PREPARED STATEMENT OF COLORADO SPRINGS UTILITIES

I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE DOLORES WATER CONSERVANCY DISTRICT

I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE PERKINS COUNTY RURAL WATER SYSTEM, INC.

Perkins County Rural Water System, Inc. respectfully submits this written testimony to the Appropriations Subcommittee on Energy and Water Development for appropriations of \$5.0 million for fiscal year 2005. This project was authorized under Public Law 106–136.

Perkins County Rural Water System, (PCRWS) has the approval of the Office of Management and Budget and the Bureau of Reclamation to proceed with construction in 2004. We have been appropriated \$7.6 million in years 2002 and 2003. We were appropriated \$1.0 million in 2004. The administration has approved us in the budget for \$500,000 for fiscal year 2005. We would not be able to keep our construction on schedule if we are appropriated this amount of money. Cost share for the system is 75 percent Federal, 15 percent local and 10 percent State. The State of South Dakota has offered to loan PCRWS the local share for 40 years at 3 percent interest to keep costs down to the customer.

Breakdown for the project for 2005 is as follows:

2005 BUDGET

	Amount
Income:	
Bureau of Reclamation	\$5,000,000
State of South Dakota	1,250,000
Misc	75,000
Total	6,325,000
Expense:	
Mainline to Bison	1,300,000
Mainline to Lemmon	1,200,000
North Dakota State Water Comm	1,000,000
Reservoir	500,000
Lemmon Rural Pipe	280,000
Bison & Prairie City Rural	1,500,000

2005 BUDGET—Continued

	Amount
Administration, Engineering	545,000
Total	6,325,000

PCRWS will need \$5.0 million for each of the next 3 years to complete our project on time. This consists of 550 miles of various size pipes ranging from 8 inches to 1.5 inches, one pump station capable of moving 800 gallons per minute, a 1.0 million gallon tank and telemetry to operate the whole system from one localized location.

The quality of water in Northwest South Dakota is the main concern for the health and well being of the people. Although the water typically meets primary standards established by the USEPA, most of the chemicals in the water are exceedingly high by the State of South Dakota standards. 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 life a lot easier for those in the rural area. Due to the isolation from major water supplies, this may be our only chance to obtain water at an affordable cost.

On the behalf of the Board of Directors of PCRWS and the people of Perkins County, South Dakota, thank you for allowing us to enter this testimony in the subcommittee's report.

PREPARED STATEMENT OF THE NORTHERN COLORADO WATER CONSERVANCY DISTRICT

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE FOUR CORNERS POWER PLANT

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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PREPARED STATEMENT OF THE PUBLIC SERVICE COMPANY OF NEW MEXICO

I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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PREPARED STATEMENT OF THE GRAND VALLEY WATER USERS ASSOCIATION

I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

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The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE COLORADO RIVER BASIN SALINITY CONTROL FORUM

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 (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 2005 to implement the needed and authorized program. Failure to appropriate these funds will result in significant economic damage in the United States and Mexico.

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 judgment of the Colorado River Basin Salinity Con-

trol Forum (Forum), is inappropriately low. This year's administration request is for \$9,064,000. 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 (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, 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 Program was authorized by Congress in 1974. The Title I portion of the 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 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 Program, in addition to proceeding to implement their own salinity control efforts in the Colorado River Basin.

The Forum is composed of gubernatorial appointees from Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. The Forum has become the seven-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 agen-

cies 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 in Mexico, and will be very significant.

Although the Program thus far has been able to implement salinity control measures that comply with the approved plan, recent drought years have caused salinity levels to rise in the river. Predictions are that this will be the trend for the next several years. This places an added urgency for the acceleration of the implementation of the Program.

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 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 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 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 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 MNI WICONI PROJECT

FISCAL YEAR 2005 CONSTRUCTION BUDGET REQUEST

The Mni Wiconi Project beneficiaries (as listed below) respectfully request appropriations and can demonstrate capability for construction in fiscal year 2005 in the amount of \$39,317,000 as follows:

	Amount
Oglala Sioux Rural Water Supply System:	
Core Facilities (Pipelines and Pumping Stations)	\$8,128,000
Distribution System on Pine Ridge	10,224,000
West River/Lyman-Jones Rural Water System	11,020,000
Rosebud Sioux Rural Water System	7,325,000
Lower Brule Sioux Rural Water System	2,620,000
Total Mni Wiconi Project	39,317,000

The project sponsors were provided by the 107th Congress (Public Law 107-367) with all the authority necessary to finish this project at the level of development originally intended on a schedule through fiscal year 2008. Completion of the project is now clearly achievable as shown in the table below:

Total Federal Required (October 2003 Dollars)	\$409,523,000
Estimated Federal Spent Through Fiscal Year 2004	\$278,110,000
Percent Spent	67.9
Amount Remaining	\$131,413,000
Years to Completion	4
Average Required for Fiscal Year 2008 Finish	\$32,853,000

The administration's budget for this project in fiscal year 2005 (\$18.2 million for construction) is a disappointment for a second year in a row. The amount requested by the administration falls far short of the average amount needed to complete the project in fiscal year 2008. The needs and merits of this project are considerable as described in section 3.

The project's operation, maintenance and replacement request from the sponsors is in addition to the construction request and is presented in section 8.

OSRWSS CORE PIPELINE TO REACH PINE RIDGE INDIAN RESERVATION IN FISCAL YEAR
2005

OGLALA SIOUX WATER SUPPLY SYSTEM CORE REQUEST

	Amount
South Core:	
Stamford to Kadoka:	
Reservoir to Kadoka Pipeline	\$1,036,000
Pump Station, 2 Reservoirs	2,111,000
Kadoka to White River Pipeline	2,587,000
North Core:	
WTP toward Hayes Pipeline	2,394,000
Total	8,128,000

The Pine Ridge Indian Reservation and parts of West River/Lyman-Jones remain without points of interconnection to the OSRWSS core. The requested funding level for the OSRWSS core of \$8.128 million will complete the project from Stamford to the northeast corner of the Pine Ridge Indian Reservation where, in combination with the western part of West River/Lyman-Jones, the remaining 50 percent of the design population resides. Funds will also be used by the Oglala Sioux Tribe to build the North Core westerly toward Hayes in the West River Lyman Jones service area with the intent to complete the OSRWSS North Core and all other core facilities in fiscal year 2007. Two additional years of funding will be required to complete the OSRWSS North Core system to serve the Reservation.

The 2000 census confirms that the Oglala Sioux population on Pine Ridge is growing at a rate of 27 percent per decade or 1½ times greater than projected from the 1990 census. Delivery of Missouri River water to this area is urgently needed.

All proposed OSRWSS construction activity will build pipelines that will provide Missouri River water immediately to beneficiaries. In many cases, construction of interconnecting pipelines by other sponsors is ongoing, and fiscal year 2005 funds are required to complete projects that will connect with the OSRWSS core and begin others.

Funding for OSRWSS core and distribution facilities is necessary to bring economic development to the Pine Ridge Indian Reservation, designated as one of five national rural empowerment zones by the previous administration. The designation serves to underscore the level of need. Economic development is largely dependent on the timely completion of a water system, which depends on appropriations for this project.

Finally, the subcommittee is respectfully requested to take notice of the fact that fiscal year 2005 will significantly advance construction of facilities that continues our progress toward the end of the project. The subcommittee's past support has brought the project to the point that the end can be seen. Key to the conclusion of the project in fiscal year 2008 is the completion of the OSRWSS core to the Pine Ridge Indian Reservation. Toward this end, funds are included in the fiscal year 2005 budget to build the connecting pipelines between the northeast corner of the Pine Ridge Indian Reservation and the central portion of the Reservation near Kyle. Rosebud is similarly engaged in the construction of major connecting pipelines that

will deliver water southerly to the central portions of the Rosebud Indian Reservation and to service areas for West River/Lyman-Jones.

UNIQUE NEEDS OF THIS PROJECT

This project covers much of the area of western South Dakota that was formerly the Great Sioux Reservation established by the Treaty of 1868. Since the separation of the Reservation in 1889 into smaller more isolated reservations, including Pine Ridge, Rosebud and Lower Brule, tensions between the Indian population and the non-Indian settlers on former Great Sioux lands have been high with little easing by successive generations. The Mni Wiconi Project is perhaps the most significant opportunity in more than a century to bring the sharply diverse cultures of the two societies together for a common good. Much progress has been made due to the good faith and genuine efforts of both the Indian and non-Indian sponsors. The project is an historic basis for renewed hope and dignity among the Indian people. It is a basis for substantive improvement in relationships.

Each year our testimony addresses the fact that the project beneficiaries, particularly the three Indian Reservations, have the lowest income levels in the Nation. The health risks to our people from drinking unsafe water are compounded by reductions in health programs. We respectfully submit that our project is unique and that no other project in the Nation has greater human needs. Poverty in our service areas is consistently deeper than elsewhere in the Nation. Health effects of water borne diseases are consistently more prevalent than elsewhere in the Nation, due in part to (1) lack of adequate water in the home and (2) poor water quality where water is available. Higher incidences of impetigo, gastroenteritis, shigellosis, scabies and hepatitis-A are well documented on the Indian reservations of the Mni Wiconi Project area. At the beginning of the third millennium one cannot find a region in our Nation in which social and economic conditions are as deplorable. These circumstances are summarized in Table 1. Mni Wiconi builds the dignity of many, not only through improvement of drinking water, but also through direct employment and increased earnings during planning, construction, operation and maintenance and from economic enterprises supplied with project water. We urge the subcommittee to address the need for creating jobs and improving the quality of life on the Pine Ridge and other Indian reservations of the project area.

TABLE 1.—PROFILE OF SELECTED ECONOMIC CHARACTERISTICS: 2000

Indian Reservation/State	2000 Population	Percent Change From 1990	Income		Percent Families Below Poverty	Percent Unemployment
			Per Capita	Median Household		
Pine Ridge Indian Reservation ...	15,521	27.07	\$6,143	\$20,569	46.3	16.9
Rosebud Indian Reservation	10,469	7.97	\$7,279	\$19,046	45.9	20.1
Lower Brule Indian Reservation	1,353	20.48	\$7,020	\$21,146	45.3	28.1
Star of South Dakota	754,844	8.45	\$17,562	\$35,282	9.3	3.0
Nation	281,421,906	13.15	\$21,587	\$41,994	9.2	3.7

Employment and earnings among the Indian people of the project area are expected to positively impact the high costs of health-care borne by the United States and the Tribes. Our data suggest clear relationships between income levels and Federal costs for heart disease, cancer and diabetes. During the life of the Mni Wiconi Project, mortality rates among the Indian people in the project area for the three diseases mentioned will cost the United States and the Tribes more than \$1 billion beyond the level incurred for these diseases among comparable populations in the non-Indian community within the project area. While this project alone will not raise income levels to a point where the excessive rates of heart disease, cancer and diabetes are significantly diminished, the employment and earnings stemming from the project will, nevertheless, reduce mortality rates and costs of these diseases. Please note that between 1990 and 2000 per capita income on Pine Ridge increased from \$3,591 to \$6,143, and median household income increased from \$11,260 to \$20,569, due in large part to this project, albeit not sufficient to bring a larger percentage of families out of poverty (Table 1).

Financial support for the Indian membership has already been subjected to drastic cuts in funding programs through the Bureau of Indian Affairs. This project is a source of strong hope that helps off-set the loss of employment and income in other programs and provide for an improvement in health and welfare. Tribal leaders have seen that Welfare Reform legislation and other budget cuts Nation-wide

have created a crisis for tribal government because tribal members have moved back to the reservations in order to survive. Economic conditions have resulted in accelerated population growth on the reservations.

The Mni Wiconi Project Act declares that the United States will work with us under the circumstances:

“ . . . the United States has a trust responsibility to ensure that adequate and safe water supplies are available to meet the economic, environmental, water supply and public health needs of the Pine Ridge, Rosebud and Lower Brule Indian Reservations . . . ”.

Indian support for this project has not come easily because the historical experience of broken commitments to the Indian people by the Federal Government is difficult to overcome. The argument was that there is no reason to trust and that the Sioux Tribes are being used to build the non-Indian segments of the project and the Indian segments would linger to completion. These arguments have been overcome by better planning, an amended authorization and hard fought agreements among the parties. The subcommittee is respectfully requested to take the steps necessary to complete the critical elements of the project proposed for fiscal year 2004.

The following sections describe the construction activity in each of the rural water systems.

OGLALA SIOUX RURAL WATER SUPPLY SYSTEM—DISTRIBUTION

OGLALA SIOUX WATER SUPPLY SYSTEM DISTRIBUTION REQUEST

	Amount
West Boundary Supply	\$506,000
Manderson Loop	1,454,000
Rockyford to Redshirt	179,000
White River to HWY 73/44 Junction:	
Pump Station, Service Lines and Reservoirs	3,127,000
HWY 73/44 Junction to Kyle	4,923,000
Indefinite Quantities	35,000
Total	10,224,000

With the conclusion of projects under construction in fiscal year 2002, the Oglala Sioux Tribe completed all facilities that can be supported from local groundwater. The Tribe, representing more than 40 percent of the project population will rely on the OSRWSS core to convey Missouri River water to and throughout the Reservation. Much pipeline has been constructed, primarily between Kyle, Wounded Knee and Red Shirt and between Pine Ridge Village and the communities of Oglala and Slim Buttes. Additional construction of the Manderson Loop is proposed in fiscal year 2005.

Of particular importance to the Oglala Sioux Tribe is the continuation of the main transmission system from the northeast corner (Highway 73/44 junction) of the Reservation to Kyle in the central part of the Reservation. The transmission line is needed to interconnect the OSRWSS core system with the distribution system within the Reservation in order to deliver Missouri River water to the populous portions of the Reservation. This critical segment of the project can be continued in fiscal year 2005 to coincide with the westward construction of the OSRWSS core to the northeast corner of the Reservation (see section 2). It will require funds in fiscal year 2006 and fiscal year 2007 to complete. This component of the Oglala system has been deferred for several years due to inadequate funding. The component is urgently needed for the OSRWSS core system to be utilized on the Pine Ridge Indian Reservation.

WEST RIVER/LYMAN-JONES RURAL WATER SYSTEM—DISTRIBUTION

WR/LJ RURAL WATER SYSTEM DISTRIBUTION REQUEST

	Amount
Mellette East	\$533,000
Moenville	9,566,000
Quinn Town Distribution	176,000
Vivian Town	441,000

WR/LJ RURAL WATER SYSTEM DISTRIBUTION REQUEST—Continued

	Amount
Indefinite Quantities	304,000
Total	11,020,000

Continued drought conditions in the project area have created serious health and economic hardships for WR/LJ members waiting to receive Mni Wiconi water service. A survey of members attending the WR/LJ annual meeting on October 8, 2003 in Midland revealed that, of those members not receiving project water, 67 percent were hauling water for domestic use and 45 percent were hauling water for livestock. Their current source of water, highly mineralized wells and dried up dams, present a serious health hazard and unaffordable increases in production costs due to the time and cost of hauling water.

The requested appropriation is directed to serving members between Ft. Pierre and Philip. The highest priority is completion of the Moenville project. Houston Rose, prior to his death, pioneered initial efforts to bring quality water to this WR/LJ service area closest to the Mni Wiconi water treatment plant. The economy of the area he represented is based on livestock operations that are dependent on quality water supplies.

WR/LJ is now the water service provider in the towns of Quinn and Vivian, however, the existing distribution piping is over 50 years old and is a very high priority for replacement. Funding is also requested for the construction of pumping station and reservoirs required to deliver the full design capability of the pipelines under construction. As a testimony to public recognition of the advantages of quality water and the reliability of the system WR/LJ continues to add users within those areas previously constructed. These additions are being financed by member contributions as part of the statutory non-Federal matching requirement.

The Mni Wiconi project, due to continued Congressional support, has progressed to where the project beneficiaries can look forward to its timely completion and receive the intended project benefits. We sincerely appreciate your support.

ROSEBUD RURAL WATER SYSTEM (SICANGU MNI WICONI)

ROSEBUD SIOUX RURAL WATER SYSTEM REQUEST

	Amount
Hidden Timber	\$1,317,000
Rosebud Improvements	737,000
Rural Antelope	866,000
Okreek	2,030,000
Mission Northwest	447,000
Livestock Water	1,271,000
Service Connections	657,000
Total	7,325,000

Fiscal year 2005 efforts build upon the successes of the past 2 years. The Rosebud Core pipeline will begin providing water from the OSRWSS at Murdo to Rosebud and WR/LJ water users in Mellette County. As a result, the limited supply of high quality ground water available from the Rosebud wellfield can be used as a source of supply for northeast Todd County.

The Rosebud Sioux Tribes efforts in fiscal year 2005 focus on connecting additional homes to new and existing pipelines. The Antelope to Okreek Pipeline, completed in late 2003, provides a supply of high quality ground water to the rural Antelope, northwest Mission, Hidden Timber and Okreek project areas. In this portion of northern Todd County, the Oglala Aquifer is not present and ground water is of poor quality and limited quantity where available. Private and community wells have failed in the area and while the Antelope to Okreek Pipeline solved the problem for the community of Okreek, many rural residents are anxiously waiting for water.

The problems are exacerbated in the Hidden Timber area. Where ground water occurs, nitrate concentrations are frequently in excess of the Safe Drinking Water Act primary standard. The high nitrate concentrations pose an acute threat to the unborn and young children.

The major features of the proposed fiscal year 2005 work plan focus on distribution and service lines for this area. Proposed projects for this area include Rural Antelope, Mission Northwest, Okreek and Hidden Timber. It is envisioned that both private contractors and the tribal construction program would be responsible for construction.

The other major project proposed for fiscal year 2005 address improvements needed in the community of Rosebud. In fiscal year 2004, the Tribe will be connecting the lower older part of Rosebud to the rural water system. While this will improve the quality and reliability of supply, improvements are needed to ensure water reaches the users. In several areas, older cast iron pipe has corroded and needs to be replaced. In other areas, older asbestos concrete pipe is still in use and felt to be a health threat. The focus of the work in Rosebud in fiscal year 2005 is to provide a reliable source of high quality water to all service connections.

The Tribe will also expand its service line program. The focus of this effort is new homes and homes that have been constructed since transmission or distribution lines have been installed. It is also proposed to start developing livestock watering facilities. The Tribe has not constructed any of these facilities to date with Mni Wiconi funding and the reality of prolonged drought is having an affect on historic livestock watering sources of supply. A reliable source of water for livestock is necessary to maintain one of the more viable components of the reservation economy.

The total amount requested for the Sicangu Mni Wiconi in fiscal year 2005 is \$7,325,000.

LOWER BRULE RURAL WATER SYSTEM—DISTRIBUTION

The Lower Brule Rural Water System (LBRWS) has gained the support of the other sponsors to complete its share of the project with funds appropriated in fiscal year 2005 budget, based on an appropriation of funds for the project in the range generally received. This support is not only a benefit for LBRWS and its users but to the project as a whole. By funding LBRWS in this manner, a savings of approximately \$1.5 million will be experienced by the project.

With the funds received in fiscal year 2004, LBRWS will complete the design, cultural resource evaluation and the securing of easements for the remaining service areas and installing mainlines and service lines required to provide water to all of the homes on the Lower Brule Indian Reservation. The fiscal year 2004 funds will also allow LBRWS to begin installing water lines to pasture taps. Since the area has experienced 2 years of drought conditions, many of the dams are dry. The provision of water will allow some pastures to be utilized that would have otherwise been of no benefit to the ranchers.

The fiscal year 2005 funds will allow the completion of the installation of pasture taps and a new 400,000 gallon elevated water tank in Lower Brule. The existing tank is in a location where the slides (soil movement) have occurred. As a result, the stability of the tank's foundation is in question.

OPERATION, MAINTENANCE AND REPLACEMENT BUDGET

The sponsors have and will continue to work with Reclamation to ensure that their budgets are adequate to properly operate, maintain and replace (OMR) their respective portions of the overall system. The sponsors will also continue to manage OMR expenses in a manner ensuring that the limited funds can best be balanced between construction and OMR. In fiscal year 2003, the approved budget for OMR was \$8.228 million, which was adequate. Funding was not adequate in fiscal year 2004 at the \$6.254 level and will not be adequate at the same leveling the administration's proposed fiscal year 2005 budget of \$6.254 million for OMR.

The project has been making significant progress especially over the last 2 years with the initiation of operation of the OSRWSS Water Treatment Plant near Ft. Pierre and the installation of a significant quantity of pipeline. The result is the need for sufficient funds to properly operate and maintain the functioning system throughout the project. As a result, the OMR budget must continue to be adequate to keep pace with the portion of the system that is placed in operation.

In addition to ongoing operation and maintenance activities, water conservation is an integral part of the OMR of the project. Water conservation not only provides immediate savings from reduced water use and production, it also extends the useful life and capacity of the system. Proposed funding is not adequate to perform water conservation functions.

PREPARED STATEMENT OF THE CITY OF WATSONVILLE, CALIFORNIA AND PAJARO
VALLEY WATER MANAGEMENT AGENCY

On behalf of the City of Watsonville and the Pajaro Valley Water Management Agency (PVWMA), we are submitting this testimony in support of Federal funding for the Watsonville Area Water Recycling Project. The project has been targeted to receive \$2.0 million as part of the fiscal year 2003 and fiscal year 2004 Energy and Water appropriations bills through the Bureau of Reclamation's Title XVI program. This year, we respectfully request your support for the inclusion of \$6.3 million in the Bureau of Reclamation's Title XVI program in the fiscal year 2005 Energy and Water Development Appropriations bill.

The City of Watsonville and the PVWMA continue to make great progress on the project. We are working diligently with the Bureau of Reclamation to develop solutions to the seawater intrusion problem affecting the water supply of our agricultural and urban water users. We need not convince you of the vital nature of this project that will protect the Pajaro Valley's fresh water supply from continued degradation.

To address the water resource needs of our area, PVWMA is implementing the Revised Basin Management Plan Project (project). Capital costs of the project are estimated at \$165 million, of which \$80 million is eligible for Federal cost sharing under the Title XVI program (in 2006 dollars). The Watsonville Water Area Recycling Project components that have qualified for funding through the Title XVI program include:

- Recycled Water Treatment Facility;
- Distribution System; and
- Salinity Control Pipeline.

The next several years will be critical for the project and we anticipate that all construction will be completed by fiscal year 2007. Certification of the Watsonville Water Area Recycling Project Feasibility Study is pending a Record of Decision on the Basin Management Plan Environmental Impact Statement, which is expected by May 2004.

The following table summarizes projected expenditures for design and construction of the Title XVI eligible project components.

(In millions of dollars)

	Projected Expenditures
Fiscal year 2004	9.8
Fiscal year 2005	25.3
Fiscal year 2006	31.3
Fiscal year 2007	13.4

We continue to be concerned by the administration's lack of support for Title XVI projects including the Watsonville Area Water Recycling Project. The Bureau's fiscal year 2005 budget recently submitted to Congress includes no funding for our project. In fact, the Bureau failed to budget for 12 of the 18 eligible projects while requesting over \$1.5 million for itself to administer the program. We strongly believe that the Title XVI program in general and the Watsonville Area Water Recycling Project specifically offer effective solutions to the water supply crisis in our State. Indeed, without the Title XVI program, water recycling in our area might not be feasible and would force increased reliance on an already oversubscribed Central Valley Project. We question the wisdom of reducing the Bureau's participation in Title XVI and ask that you work with your colleagues in support of the program as well as funding for the Watsonville Area Water Recycling Project.

We are excited to report that the project is moving ahead on schedule. Approximately \$18 million of project components have been constructed through fiscal year 2003. The accelerated construction of these project components allows PVWMA to deliver water early and demonstrate continued progress. In fiscal year 2004, we initiated work on the final design of the distribution system, the recycled water facilities, blending facilities and water wells, and salinity control pipeline. The design for each component will be completed in early fiscal year 2005 and construction of the projects will commence immediately thereafter.

Please feel free to contact PVWMA's Washington Representative or us if you have any questions or require additional information.

PREPARED STATEMENT OF THE LEWIS AND CLARK RURAL WATER SYSTEM

BACKGROUND

The Lewis and Clark Rural Water System is requesting \$35 million through the Bureau of Reclamation in Federal funding for continuing construction activities in 2005. These funds will be used for construction, acquisition of easements and property, engineering, and associated legal and professional costs. The project has completed required planning and environmental reviews, and major construction will begin this year. The \$17 million secured in fiscal year 2004 will enable Lewis and Clark to install the first segments of the raw water pipeline, provide emergency water connections for communities in Iowa, and various other interconnections throughout the water system. The three member-states and the local project sponsors have also contributed much to this project, with roughly \$11 million in local funds to be made available in fiscal year 2005.

The President's budget requests \$17.5 million for Lewis and Clark, which reflects a commitment he made to the project last summer. While this request is a welcome starting point, \$35 million is necessary to fully-fund the project this year to ensure construction activities will continue in 2005. Even though we are in the early stages of construction, it is important to keep the project on schedule in order to provide this much-needed water source to area communities as soon as possible.

The Lewis and Clark Rural Water System Act became law in July 2000 (Public Law 106-246). When complete, the project will provide safe, reliable drinking water to approximately 200,000 people in South Dakota, Minnesota, and Iowa. Lewis and Clark represents a unique regional approach by three States to address common problems with area water resources in a more effective and cost-efficient way than each State could do alone. Regional water problems include shallow wells and aquifers prone to contamination, compliance with new Federal drinking water standards, and increasing water demand due to population growth and economic expansion.

The Lewis and Clark project will utilize an aquifer adjacent to the Missouri River near Vermillion, South Dakota, and will distribute water to member communities in an area of approximately 5,000 square miles, roughly the size of Connecticut. When complete, the drinking water will pass through a well system, a water treatment plant, and a non-looped distribution system. The system also will include water storage tanks that will provide approximately a 1-day supply. The project will require an estimated 10 to 12 years to complete.

PLANS FOR CONSTRUCTION IN 2004 AND 2005

Lewis and Clark developed a schedule for construction and related services to be performed during the next 2 years. The following work is anticipated in fiscal year 2004 and fiscal year 2005, subject to the availability of funding.

Projects Planned for Fiscal Year 2004

Raw Water Pipeline—Segment 1.—This project has been awarded to Winter Brothers Underground for \$1,850,000. Construction will begin in May and will be completed by the end of September.

Raw Water Pipeline—Segments 2 and 3.—This project is currently in the final design phase. Permit applications and easements are currently being processed. It is anticipated this project would be awarded to a contractor in the early summer and construction start in late summer/early fall 2004.

Site J Production Pump Test Well.—Lewis & Clark currently plans to drill another test production well south and west of Vermillion. The well will be a $\pm 105'$ deep vertical well and will be sized to be an actual production well for the project. The construction period will be from August 15 through November 15.

Treated Water Pipeline—SD Segment 1.—The Treated Water Pipeline Segment 1 will involve construction of a pipeline from west of Sioux Falls to Tea, South Dakota. The project will include construction of the main 48" treated water transmission pipeline for the Lewis & Clark System. Lewis & Clark plans to bid and award this project in September 2004.

Treated Water Pipeline—IA Segment 1 (Iowa Emergency Connection).—The first phase of the Iowa Emergency Connection will involve a pipeline from the Sioux Center water treatment plant to Hull, Iowa. The project will include construction of the main treated water transmission pipeline for the Lewis & Clark System and service connection lines for Sioux Center and Hull. Lewis & Clark plans to bid and award this project in September 2004 or 2005, depending upon funding levels.

Water Treatment Plant Pre-design.—This task includes a preliminary design and evaluation of the treatment plant. The goal is to complete the pre-design and pro-

vide drawings, draft specifications and technical memoranda for a Value Engineering review in early 2005.

Projects Planned for Fiscal Year 2005

Fiscal year 2005 activities will include a continuation of the projects listed above for 2004, plus the following additional system components:

Treated Water Pipeline—SD Segment 2.—The second phase of the treated water pipeline construction in South Dakota would include construction of the main 48" pipeline from Tea south to Lennox. Part or all of this segment may be included in the 2004 construction if delays are experienced elsewhere in the project. Lewis & Clark would bid and award this project in the summer of 2005.

Treated Water Pipeline—SD Segment 3.—The third phase of the treated water pipeline construction in South Dakota would be a continuation of the main 48" pipeline south from Lennox to Highway 18. Lewis & Clark would bid and award this project in the summer of 2005.

(Under Consideration) Treated Water Pipeline—SD Segment 4 (portion of Parker service line).—This phase would include a portion of the service line to Parker, South Dakota. Initial construction of this line would be constructed to the turnout for South Lincoln RWS. If pursued, Lewis & Clark would bid and award this project in the summer of 2005.

(Under Consideration) Treated Water Pipeline—SD Segment 5 (South Dakota Emergency Connection).—The South Dakota Emergency Connection may include construction of a pipeline from the east side of Sioux Falls to connect to Lincoln County Rural Water System. The project would include construction of the main treated water transmission pipeline for the Lewis & Clark System. This part of the emergency connection will permit temporary transmission of water from Minnehaha Community Water Corporation (MCWC) to the Lincoln County RWS. Additional water could be provided to Tea, Lincoln County RWS and Harrisburg. If pursued, Lewis & Clark would bid and award this project in the summer of 2005.

(Under Consideration) Treated Water Pipeline—IA Segments 2 (Iowa Emergency Connection).—The next phase of the Iowa Emergency Connection may include building a short section of Lewis & Clark pipeline to connect Sheldon, Iowa to a temporary source of water. If pursued, Lewis & Clark plans to bid and award this project in the summer of 2005.

Treated Water Pipeline—MN Segment 1 (Minnesota Emergency Connection).—The Minnesota Emergency Connection will involve construction of a pipeline from Magnolia to east of Adrian, Minnesota. The project will include construction of the main treated water transmission pipeline for the Lewis & Clark System. The emergency connection will pump water from Rock County RWS to Lincoln-Pipestone RWS and other Minnesota water systems under future contracts. Lewis & Clark plans to bid and award this project in the summer of 2005 or 2006, depending on funding levels.

Water Treatment Plant Design.—The Value Engineering (VE) review will be performed in early 2005. The design team will proceed with design of the water treatment plant incorporating the results and recommendations from the VE review.

PREPARED STATEMENT OF THE MID-DAKOTA RURAL WATER SYSTEM

FISCAL YEAR 2005 FUNDING REQUEST

The Mid-Dakota Project is requesting an appropriations of \$17.015 million provided through the Bureau of Reclamation's project construction program for fiscal year 2005. As with our past submissions to this subcommittee, Mid-Dakota's fiscal year 2005 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.

An appropriation of \$17.015 million for fiscal year 2005 will complete the Federal Government's funding obligation for the initial construction of the authorized Project. It is with pleasure that Mid-Dakota agrees with President Bush's \$17.015 million request for Mid-Dakota in fiscal year 2005.

TENTATIVE FISCAL YEAR 2005 CONSTRUCTION SCHEDULE ¹

The proposed construction would provide service to an estimated 1,500 more people than are currently receiving or scheduled to receive Project drinking water.

MID-DAKOTA RURAL WATER SYSTEM STATEMENT OF CAPABILITIES FISCAL YEAR 2005 (OCTOBER 2004 THROUGH SEPTEMBER 2005)

		Construction	Inspection—Per- cent of Const.	Engin. and Legal	Subtotals
100	Source and Intake (Percent)		12	2	
1	Expansion	\$80,000	\$57,600	\$9,600	\$547,200
	Subtotals	\$480,000	\$7,600	\$9,600	\$547,200
200	Water Treatment (Percent)		12	2	
1	Expansion	\$710,000	\$445,200	\$74,200	\$4,229,400
2	VFD IEEE comp.	\$250,000	\$30,000	\$5,000	\$285,000
	Subtotals	\$3,960,000	\$475,200	\$79,200	\$4,514,400
300	Main Trans. Pipe (Percent)		8	2	
1	Expansion—BPS	\$2,175,000	\$174,000	\$43,500	\$2,392,500
	Subtotals	\$2,175,000	\$174,000	\$43,500	\$2,392,500
400	Dist. Pipeline (Percent)		6	6	
1	Wolsey (4—3P (2))	\$2,610,000	\$156,600	\$156,600	\$2,923,200
2	Pearl Creek	\$1,815,000	\$108,900	\$108,900	\$2,032,800
3	Staum Dam	\$1,450,000	\$87,000	\$87,000	\$1,624,000
4	Redfield East	\$415,000	\$24,900	\$24,900	\$464,800
5	Vaults and stations	\$280,000	\$16,800	\$16,800	\$313,600
	Subtotals	\$6,570,000	\$394,200	\$394,200	\$7,358,400
500	Water Storage (Percent)		12	6	
1	Canning Tank	\$1,120,000	\$134,400	\$67,200	\$1,321,600
	Subtotals	\$1,120,000	\$134,400	\$67,200	\$1,321,600
600	SCADA and Controls (Percent)		8	8	
1	Controls & SCADA	\$295,000	\$23,600	\$23,600	\$342,200
	Subtotals	\$295,000	\$23,600	\$23,600	\$342,200
	TOTAL	\$4,600,000	\$1,259,000	\$617,300	\$16,476,300
	Administration as a Percent of Construction ..		1.5		\$219,000
	Bur. of Rec. as a Percent of Construction		3.0		\$438,000
	Contingencies as a percent of Construction ..		10.0		\$1,460,000
	TOTAL CONSTRUCTION CAPABILITIES— FISCAL YEAR 2005				\$18,593,300
	WETLAND COMPONENT REQUEST—FISCAL YEAR 2005				\$317,000
	TOTAL FISCAL YEAR 2005 CAPABILI- TIES—FISCAL YEAR 2005				\$18,910,300

Total capabilities are greater than the amount remaining in authorized funds. If a funding shortfall is realized, Mid-Dakota will examine its options for funding the shortfall when the amount is known.

¹Project 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.

IMPACTS OF FISCAL YEAR 2005 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 \$17.015 million will allow for the completion of the Mid-Dakota Project as it is currently authorized. The requested appropriation will provide the necessary funds to proceed with construction of multiple contracts summarized earlier in this testimony.

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)

	Amount
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 2005 figures were not available at the time of writing this testimony). All Federal funding considered, the Government has provided 89 percent of its commitment (\$126.726² million of \$143.035 million) to provide construction funding for the Project. When considering the Federal and State combined awards, the project is approximately 89 percent complete, in terms of financial commitments.

SUMMARIZATION OF FEDERAL FUNDING

[In millions of dollars]

Fed. Fiscal year	Mid-Dakota Request	Pres. Budg.	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	16.129	0.800	16.929
2004	23.869	2.040	12.040	15.040	15.040	13.522	.....	13.522
2005	17.015	17.015	.....	.....	.....	.....	.....	.....
Totals ¹ .....	.....	75.175	116.16	127.52	127.52	117.242	9.484	126.726

¹ 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.

² Includes \$15.0 million appropriated in fiscal year 2004, but does not include Agency "under-financing" or 2005 Indexing.

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:

Contract	Contract Amount with Change Orders	Work Complete to Date	Percent Dollars Comp.	Contract Completion Date
1-1, Intake Station	\$3,944,961.74	\$3,944,961.74	100	02/28/97
1-1A, Intake Rip-Rap	\$87,178.75	\$87,178.75	100	05/02/98
1-1B, Intake Road	\$26,187.50	\$26,187.50	100	10/01/99
2-1, Water Treat. Plant	\$10,242,564.00	\$10,242,564.00	100	04/28/98
2-1A, WTP Controls	\$14,628.98	\$14,628.98	100	08/03/00
O&M Center Paving	\$58,473.87	\$58,473.87	100	06/13/00
3-1A, Raw Water Pipe	\$1,719,251.30	\$1,719,251.30	100	03/29/96
3-1B, Main Trans. Pipe	\$7,022,055.73	\$7,022,055.73	100	12/21/97
3-1C, Main Trans. Pipe	\$4,793,104.90	\$4,793,104.90	100	11/10/97
3-1D, CP System	\$214,651.00	\$214,651.00	100	11/01/00
3-2A, Main Trans. Pipe	\$3,155,454.93	\$3,155,454.93	100	12/03/99
3-2B, Main Trans. Pipe	\$3,356,564.67	\$3,356,564.67	100	12/09/99
3-3A, Main Trans. Pipe	\$2,383,513.37	\$2,383,513.37	100	11/01/02
3-3B, Main Trans. Pipe	\$3,881,892.39	\$3,871,671.00	99	11/13/03
3-3C, Main Trans. Pipe	\$2,630,672.25	\$2,601,234.00	99	11/13/03
4-1A/B (1-5) Dist. Pipe	\$10,572,231.62	\$10,572,231.62	100	10/20/97 ¹ 11/15/97 ¹ 11/15/98 05/30/99
4-1A/B (6) Dist. Pipe	\$9,027,572.49	\$9,027,572.49	100	10/22/99 ¹ 12/03/00
4-2 (1) Dist. Pipe	\$4,707,394.81	\$4,707,394.81	100	11/10/00
4-2 (2) Dist. Pipe	\$3,000,176.49	\$3,000,176.49	100	11/13/00
4-2 (4-5) Dist. Pipe	\$5,134,974.43	\$5,134,974.43	100	10/31/01
4-2A (4) Dist. Pipe	\$1,191,329.30	\$1,191,329.30	100	10/31/01 07/01/02
4-2AP (2-3) Dist. Pipe	\$11,435,814.24	\$11,114,781.91	97	11/17/02 12/31/03
4-2AV (2-3) Dist. Pipe	\$686,749.00	\$686,749.00	100	11/01/03
5-1, Highmore Tank	\$1,433,000.00	\$1,433,000.00	100	10/20/97
5-1A (1) Onida Tank	\$397,688.00	\$397,688.00	100	06/30/99
5-1A(2-4) Oko. Agar Getty. Tanks	\$1,526,453.00	\$1,526,453.00	100	09/18/00
5-2 (1) Mac's Corner Tank	\$561,100.69	\$561,100.69	100	10/16/00
5-2 (2-3) Rezac Lake & Collins Slough Tanks ...	\$911,720.00	\$911,720.00	100	09/01/01
5-2A (1-3) Ames & Wess. Springs Tanks	\$868,490.00	\$868,490.00	100	09/01/02 09/01/03
5-2A (2) Cottonwood Lake Tank	\$695,862.98	\$695,862.98	100	09/01/02
5-3 Wolsey Tank	\$2,021,414.00	\$1,281,594.00	63	11/01/04
6-1 SCADA System	\$888,260.50	\$837,680.72	94	12/01/03
TOTAL	\$98,591,386.93	\$97,440,295.18		

¹ Intermediate completion date.

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 finally consider the fact that fully funding the fiscal year 2005 appropriation request as submitted by the President and by Mid-Dakota will fully fund the initial authorized components of the Mid-Dakota Project.

Again, we thank the subcommittee for its strong support, both past and present.

PREPARED STATEMENT OF THE NEW MEXICO INTERSTATE STREAM COMMISSION

SUMMARY

This statement is submitted in support of appropriations for the Colorado River Basin salinity control program of the Department of the Interior's Bureau of Reclamation. Congress designated the Bureau of Reclamation to be the lead agency for salinity control in the Colorado River Basin by the Colorado River Basin Salinity Control Act of 1974. Public Law 104-20 reconfirmed the Bureau of Reclamation's role. A total of \$17.5 million is requested for fiscal year 2005 to implement the authorized salinity control program of the Bureau of Reclamation. The President's appropriation request is inadequate because studies have shown that the implementation of the salinity control program has fallen behind the pace needed to control salinity. An appropriation of \$17.5 million for Reclamation's salinity control program is necessary to protect water quality standards for salinity and to prevent unnecessary levels of economic damage from increased salinity levels in water delivered to the Lower Basin States and Mexico.

STATEMENT

The water quality standards for salinity of the Colorado River must be protected while the Basin States continue to develop their compact apportioned waters of the river. Studies have shown that the implementation of the salinity control program has fallen below the threshold necessary to prevent future exceedence of the numeric criteria of the water quality standards for salinity in the Lower Basin of the Colorado River. The salinity standards for the Colorado River have been adopted by the seven Basin States and approved by EPA. While currently the standards have not been exceeded, salinity control projects must be brought on-line in a timely and cost-effective manner to prevent future effects that would cause the numeric criteria to be exceeded.

The Colorado River Basin Salinity Control Act was authorized by Congress and signed into law in 1974. The seven Colorado River Basin States, in response to the Clean Water Act of 1972, had formed the Colorado River Basin Salinity Control Forum, a body comprised of gubernatorial representatives from the seven States. The Forum was created to provide for interstate cooperation in response to the Clean Water Act, and to provide the States with information necessary to comply with Sections 303(a) and (b) of the Act. The Forum has become the primary means for the Basin States to coordinate with Federal agencies and Congress to support the implementation of the salinity control program for the Colorado River Basin.

Bureau of Reclamation studies show that damages from the Colorado River to United States water users are about \$300,000,000 per year. Damages are estimated at \$75,000,000 per year for every additional increase of 30 milligrams per liter in salinity of the Colorado River. Control of salinity is necessary for the Colorado River Basin States, including New Mexico, to continue to develop their compact-apportioned waters of the Colorado River.

It is essential that appropriations for the funding of the salinity control program be timely in order to comply with the water quality standards for salinity to prevent unnecessary economic damages in the United States, and to protect the quality of the water that the United States is obligated to deliver to Mexico. An appropriation of only the amount specified in the President's budget request is inadequate to protect the quality of water in the Colorado River and prevent unnecessary salinity damages in the States of the Lower Colorado River Basin. Studies have shown that the implementation of the salinity control program has fallen behind the pace needed to control salinity. Although the United States has always met the water quality standard for salinity of water delivered to Mexico under Minute No. 242 of the International Boundary and Water Commission, the United States through the U.S. Section of IBWC is currently addressing a request by Mexico for better quality water.

Congress amended the Colorado River Basin Salinity Control Act in July 1995 (Public Law 104-20). The salinity control program authorized by Congress by the amendment has proven to be very cost-effective, and the Basin States are standing ready with up-front cost sharing. Proposals from public and private sector entities in response to the Bureau of Reclamation's advertisement have far exceeded available funding. Basin States cost sharing funds are available for the \$17.5 million appropriation request for fiscal year 2005. The Basin States cost sharing adds 43 cents for each Federal dollar appropriated.

Public Law 106-459 gave the Bureau of Reclamation additional spending authority for the salinity control program. With the additional authority in place and significant cost sharing by the Basin States, it is essential that the salinity control pro-

gram be funded at the level requested by the Forum and Basin States to protect the water quality of the Colorado River.

Maintenance and operation of the Bureau of Reclamation's salinity control projects and investigations to identify new cost-effective salinity control projects are necessary for the success of the salinity control program. Investigation of new opportunities for salinity control are critical as the Basin States continue to develop and use their compact-apportioned waters of the Colorado River. The water quality standards for salinity and the United States water quality requirements pursuant to treaty obligations with Mexico are dependent on timely implementation of salinity control projects, adequate funding to maintain and operate existing projects, and investigations to determine new cost-effective projects.

I urge the Congress to appropriate \$17.5 million to the Bureau of Reclamation for the Colorado River Basin salinity control program, adequate funding for operation and maintenance of existing projects and adequate funding for general investigations to identify new salinity control opportunities. Also, I fully support testimony by the Forum's Executive Director, Jack Barnett, in request of this appropriation, and the recommendation of an appropriation of the same amount by the federally chartered Colorado River Basin Salinity Control Advisory Council.

LETTER FROM THE STATE ENGINEER'S OFFICE, WYOMING

Cheyenne, Wyoming, May 18, 2004.

The Honorable PETE V. DOMENICI,
Chairman,

The Honorable HARRY REID,
Ranking Member,

Energy and Water Development Subcommittee, Committee on Appropriations, United States Senate, 127 Dirksen Senate Office Building, Washington, DC 20510.

DEAR CHAIRMAN DOMENICI AND SENATOR REID: This letter is sent in support of fiscal year 2003 funding for the Bureau of Reclamation's Colorado River Basin Salinity Control Project—Title II Program. Thank you in advance for inclusion of this letter in the formal hearing record concerning fiscal year 2005 appropriations.

The Colorado River provides municipal and industrial water for 27 million people and irrigation water to nearly 4 million acres of land in the United States. The River is also the water source for some 2.3 million people and 500,000 acres in Mexico. Limitations on users' abilities to make the greatest use of that water supply due to the River's high concentration of total dissolved solids (hereafter referred to as the salinity of the water) are a major concern in both the United States and Mexico. Salinity in the water source especially affects agricultural, municipal, and industrial water users. While economic detriments and damages in Mexico are unquantified, the Bureau of Reclamation presently estimates salinity-related damages in the United States to amount to \$330 million per year. The River's high salt content is in almost equal part due to naturally occurring geologic features that include subsurface salt formations and discharging saline springs; and the resultant concentrating effects of our users' man's storage, use and reuse of the waters of the River system. Over-application of irrigation water by agriculture is a large contributor of salt to the Colorado River as irrigation water moves below the crop root zone, seeps through saline soils and then returns to the river system.

The 1944 Mexico Treaty obligates the United States to provide 1.5 million acre-feet of water to Mexico, but does not address quality. Mexico filed a formal protest in the 1960's when the salinity levels of water being delivered pursuant to the Treaty increased sharply. Several minutes, including Minute 242 to the Treaty, were negotiated to address the water quality concerns voiced by Mexico. Minute 242 requires the average annual salinity of the Colorado River water delivered to Mexico upstream of Mexico's principal diversion dam (Morelos Dam) can be no more than 115 parts per million (PPM), plus or minus 30 PPM higher than the average salinity of the water arriving at Imperial Dam, the lowermost point of major water diversion in the United States.

The Environmental Protection Agency's interpretation of the 1972 amendments to the Clean Water Act required the seven Basin States to adopt water quality standards for salinity levels in the Colorado River. In light of the EPA's regulation to require water quality standards for salinity in the Basin, the Governors of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming created the Colorado River Basin Salinity Control Forum as an interstate coordination mechanism in 1973. To address these international and regionally important salinity problems, the Congress enacted the Colorado River Basin Salinity Control Act of 1974. Title I ad-

addressed the United States' obligations to Mexico to control the River's salinity to ensure the United States' water deliveries to Mexico are within the specified salinity concentration range. Title II of the Act authorized control measures upstream of Imperial Dam and directed the Secretary of the Interior to construct several salinity control projects, most of which are located in Colorado, Utah, and Wyoming. Title II of the Act was again amended in 1995 and 2000 to direct the Bureau of Reclamation to conduct a basin-wide salinity control program. This program awards grants to non-Federal entities, on a competitive-bid basis, which initiate and carry out salinity control projects. The basin-wide program has demonstrated significantly improved cost-effectiveness, as computed on \$1 per ton of salt basis, as compared to the prior Reclamation-initiated projects. The Forum was heavily involved in the development of the 1974 Act and its subsequent amendments, and continues to actively oversee the Federal agencies' salinity control program efforts.

During the past 31 years, the seven State Colorado River Basin Salinity Control Forum has actively assisted the Federal agencies, including the Bureau of Reclamation, in implementing this unique and important program. At its October 2003 meeting, the Forum recommended that the Bureau of Reclamation seek to have appropriated and should expend for Colorado River Basin salinity control the sum of \$17,500,000 in fiscal year 2005. We strongly believe these efforts constitute one of the most successful Federal/State cooperative non-point source pollution control programs in the United States.

The State of Wyoming greatly appreciates the subcommittee's support of the Colorado River Salinity Control Program in past years. We suggest this important basin-wide water quality improvement program merits continued funding and support by your subcommittee.

With best regards,

JOHN W. SHIELDS,
Interstate Streams Engineer, for

PATRICK T. TYRRELL,
*Wyoming State Engineer, Wyoming Member, Colorado River Basin Salinity
Control Forum.*

PREPARED STATEMENT OF THE STATE OF WYOMING

I write to request your support for an appropriation in fiscal year 2005 of \$5,234,000 to the Bureau of Reclamation within the budget line item entitled "Endangered Species Recovery Implementation Program" for the Upper Colorado Region. The President's recommended budget for fiscal year 2005 includes this line-item amount. The funding designation we seek is as follows: \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development.

These highly successful, cooperative programs are ongoing partnerships among the States of Colorado, New Mexico, Utah and Wyoming, Indian tribes, Federal agencies and water, power and environmental interests. The programs' objectives are to recover endangered fish species while water development proceeds in compliance with the Endangered Species Act. The programs reflect a prudent approach to providing endangered species conservation and recovery within the framework of the 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 2005 appropriation will allow construction of fish passage structures at the Grand Valley Project and Price-Stubb diversion dams on the Colorado River near Grand Junction, Colorado. Fish passage will provide access to an additional 50 miles of historic habitat upstream of these dams. Floodplain restoration activities will continue at high-priority sites and is especially important for the survival of the razorback sucker species. Screening of existing diversion canals, needed to prevent endangered fish from being drawn out of the river and into canal and power plant intake structures, will proceed at the Redlands Water and Power Company and Bureau of Reclamation-constructed Grand Valley Project facilities. The requested funding for the San Juan River Recovery Program will be used for program management, propagation facilities, stocking efforts, non-native management efforts and construction of a fish screen in the Hogback Irrigation Project canal. Additional hatchery facilities, restoring floodplain habitat and fish passage, regulating and supplying instream habitat flows, installing diversion canal screens and controlling non-native fish populations are key components of the capital construction efforts ongoing in both programs.

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, authorizes 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. 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. On behalf of the citizens of Wyoming, I thank you for that support and request the subcommittee's assistance for fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important 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 2005 Energy and Water Development appropriations request by the U.S. Bureau of Reclamation, Lower Colorado Region.

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. CAWCD was created in 1971 as the local governmental entity responsible for contracting with the United States to repay the reimbursable construction costs of the CAP and, subsequently to operate and maintain the completed 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, and represents roughly 80 percent of the water users and taxpayers of the State of Arizona. CAWCD is 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.

Project repayment is provided for through a Master Repayment Contract between CAWCD and the United States. Project repayment began in 1994. To date, CAWCD has repaid \$740 million of CAP construction costs to the United States.

CENTRAL ARIZONA PROJECT

In its fiscal year 2005 budget request, Reclamation seeks \$34,087,000 for the CAP. Of this amount, \$21,358,000 is requested for the continuation of construction of water distribution systems for various Indian water users. CAWCD supports full funding for this important program.

Reclamation is also requesting \$1,849,000 to continue tendon repairs to the Centennial, Jackrabbit, and Hassayampa siphons. Completing the tendon repairs to these siphons is critical to the long term reliability of the CAP water delivery system; therefore, CAWCD strongly supports this appropriation request.

An amount of \$6,692,000 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. \$1,951,000 and \$28,000, respectively, are requested to complete environmental activities at Modified Roosevelt Dam and to complete a reservoir limnology follow-up study at Lake Pleasant. CAWCD supports these budget requests.

Reclamation is requesting \$959,000 to begin land acquisition and right-of-way activities, and to continue coordination and design elements for the water supply reliability features of the Tucson Reliability Division, also known as Tucson Terminal Storage. A stipulation that settles a 1995 lawsuit between CAWCD and Reclamation over CAP costs requires Reclamation to consult with CAWCD before proceeding with the development of these features because of their potential impact on CAWCD's repayment obligation for CAP. Reclamation has not consulted with CAWCD, the city of Tucson, or other Tucson area customers about these activities. Until such consultation occurs, CAWCD opposes any funding for land acquisition and right of way activities for the Tucson Reliability Division.

COLORADO RIVER BASIN SALINITY CONTROL PROJECT—TITLE I

In its fiscal year 2005 budget request, Reclamation is requesting \$10,869,000 under the Colorado River Basin Salinity Control Project—Title I. This program supports maintenance 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, the YDP is not operational. 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 not accounted for as deliveries to Mexico under the 1944 Mexican Treaty 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. The Colorado River system is now in its fifth consecutive year of below normal runoff, and water levels in Lake Powell and Lake Mead are at their lowest levels in over 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 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 annual subcontract entitlement to CAP water.

The House of Representatives Report accompanying the fiscal year 1995 Energy and Water Development Appropriations bill directed Reclamation to maintain the YDP so as to be capable of operating at one-third capacity with a 1-year notice of funding. Conference Report 108–357 that accompanied the fiscal year 2004 Energy and Water Development Appropriations Act directed the Bureau of Reclamation to expedite its modifications to the YDP to enable state of the art operation and to accelerate permitting and environmental compliance activities. A report to the House and Senate Committees on Appropriations was due within 180 days. Reclamation indicates that this report is currently being prepared.

Reclamation's fiscal year 2005 budget justification documents again provide no indication that it has any intention of actually operating the YDP. The budget request for fiscal year 2005 is \$381,000 less than Reclamation's fiscal year 2004 budget request. Of this amount, \$781,000 is requested for Title I research technology to “. . . promote less expensive operation of the YDP and exploration of new technology to keep the YDP viable as a tool to address future water resource needs.” According to Reclamation's budget justification documents, research advancements have already realized a cumulative savings of \$10,000,000 in full plant operating expenses. This is an interesting statement in light of the fact that the plant is not being operated. It is also interesting to note that while Reclamation estimates \$24 million per year would be needed to operate the plant, it is requesting about \$10 million in order not to operate it. The \$781,000 should be redirected toward activities necessary to make the YDP operational.

Reclamation is requesting \$1,780,000 for continuing data gathering and analysis regarding the salinity of flows arriving at Imperial Dam and flows going into Mexico as well as work associated with minimizing Wellton-Mohawk drainage flows. Work also includes operation of sludge disposal equipment and activities required to purify feed water to the plant. CAWCD understands that most of this work is necessary, but not directly related to YDP operations. However, since the YDP is not operational, it is not clear what is being done for sludge disposal and feed water purification. If this is pretreatment for water treated at the research facility that is already included in the \$781,000 previously mentioned, then that portion of the \$1,780,000 requested should be redirected to YDP rehabilitation.

Reclamation is requesting \$5,771,000 for continuing efforts to ensure the Yuma Desalting Plant can operate to meet Mexican Treaty requirements. This is \$147,000 more than Reclamation's fiscal year 2004 budget request for this same line item. Work includes long-term maintenance of Yuma Desalting Plant infrastructure and facilities, maintenance of sections of the Bypass Drain, Protective and Regulatory Pumping Unit and mitigation features. Reclamation's narrative does not provide enough information to determine how much of this total amount is needed for features other than YDP; however, past spending reports, prepared by Reclamation, indicate about 50 percent or \$2.9 million might be available for necessary maintenance and rehabilitation to restore operational capability at YDP.

Reclamation is requesting \$483,000 to continue a long-term program to bank water and/or pursue short-term agricultural water right leases to offset the need to operate the plant. This is \$2,759,000 less than Reclamation's fiscal year 2004 budget request for the same line item. There is no possibility for a program to bank water in 2005. Any plans for water right leases/land fallowing will require several million dollars. Reclamation also notes these funds would complete the permitting and envi-

ronmental compliance process for YDP operations. CAWCD supports this request only to the extent needed to complete the actions, documentation and permits necessary to operate YDP.

Reclamation has included a line item in its appropriations request for \$2,054,000 for replacement of high pressure reverse osmosis pumps to correct corrosion problems and to continue to improve plant readiness and correct design deficiencies. CAWCD supports Reclamation's efforts to repair any design deficiencies. We encourage Reclamation to ensure that they have a comprehensive plan in place.

Using the information provided in Reclamation's appropriation request, it appears that of the \$10,869,000 requested about \$6,735,000 could be used for rehabilitation and modernization of the YDP with a goal of one-third operational capability by the end of 2006. That presumes Reclamation will spend \$2 to \$3 million of 2004 appropriations on such activities and that the budget will remain relatively level in 2006.

CAWCD requests that language be included in the fiscal year 2005 Energy and Water Appropriations bill directing Reclamation to take the necessary steps to bring the Yuma Desalting Plant into operation at no less than one-third capacity by the end of fiscal year 2006. CAWCD believes Reclamation's budget is sufficient to accomplish this goal.

COLORADO FRONT WORK AND LEVEE SYSTEM

Reclamation is requesting \$3,647,000 for the Colorado River Front Work and Levee System. This project regulates, stabilizes, and maintains the river channel and includes the existing offstream storage feature, Senator Wash Dam. This budget request also includes continuing work to plan and design additional offstream storage on the All American Canal. CAWCD supports the budget request for these activities.

ENDANGERED SPECIES CONSERVATION/RECOVERY PROJECT

Reclamation is requesting \$1,298,000 for its ongoing Endangered Species Conservation/Recovery Project. This program provides for the development and implementation of projects for the stewardship of endangered, threatened, proposed, and candidate species that are resident or migratory to habitats within the lower Colorado Region. These activities are complementary to the Lower Colorado River Multi-Species Conservation Program (MSCP). CAWCD supports this request.

LOWER COLORADO RIVER OPERATIONS PROGRAM

In its fiscal year 2005 budget request, Reclamation seeks \$15,322,000 for its Lower Colorado River Operations Program. This program provides for Reclamation to continue its activities as the "water master" on the lower Colorado River and provides Reclamation's funding for the lower Colorado River Multi-Species Conservation Program (MSCP). \$2,018,000 is for administration of the Colorado River and \$3,177,000 is for water contract administration and decree accounting. Under Fish and Wildlife Management and Development, \$9,027,000 is requested, of which \$6,234,000 is earmarked for the MSCP. It is anticipated that a similar amount will be contributed by non-Federal parties. In addition, \$1,184,000 is requested for Southwestern Willow Flycatcher and Yuma Clapper Rail Protection, \$1,199,000 is for Razorback and Bonytail Chub protection, \$410,000 for riparian restoration and research, \$150,000 for NEPA compliance activities.

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 provide habitat for hundreds of threatened and endangered species and, at the same time, allow current water and power operations to continue.

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. These are critical programs upon which lower Colorado River water and power users depend.

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.

PREPARED STATEMENT OF THE COLORADO RIVER WATER CONSERVATION DISTRICT

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

These funds are authorized by Public Law 106-392. Substantial non-Federal cost sharing funds are provided by the States of Colorado, Wyoming, Utah, and New Mexico, power users, and water users in support of these recovery programs. These programs are carried out consistent with State law and interstate water compacts.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE FORT PECK ASSINIBOINE AND SIOUX TRIBES AND DRY PRAIRIE RURAL WATER

FISCAL YEAR 2005 BUDGET REQUEST

The Fort Peck Assiniboiné and Sioux Tribes and Dry Prairie Rural Water respectfully request fiscal year 2005 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 \$25,000,000, based on capability to spend the requested funds as set out below:

FISCAL YEAR 2005 WORK PLAN—FORT PECK RESERVATION RURAL WATER SYSTEM (PUBLIC LAW 106-382)

	Funding	Costs
Appropriations Requested	\$25,000,000	
Estimated Rescission and Underfinancing @ 10.18%	(2,545,000)	
Available Federal Funds	22,455,000	
Fort Peck Tribes:		
Federal Funds	15,911,000	
Work Plan:		
Design and Reclamation Oversight		\$1,136,000
Missouri River Water Treat Plant		14,775,000
		15,911,000
Dry Prairie:		
Federal Funds	6,544,000	
Non-Federal Funds	2,067,000	
Total	8,611,000	
Work Plan:		
Design and Reclamation Oversight		609,000
Complete Culbertson to Medicine Lake Pipeline		331,000
Dane Valley and E. Med. Lake Pipelines		7,671,000
		8,611,000

The sponsor Tribes and Dry Prairie greatly appreciate the previous appropriations from the subcommittee that have permitted building the Missouri River intake, the critical water source, and the first phase of the Culbertson to Medicine Lake Pipeline Project.

The request is less than the average annual appropriations needed to complete the project in fiscal year 2012, as provided by the authorizing legislation:

Total Federal Funds Authorized (October 2003 Dollars)	\$207,333,000
Federal Funds Expended Through Fiscal Year 2004	\$1,804,000
Percent Complete	0.87
Amount Remaining	\$205,529,000
Average Required for Fiscal Year 2012 Finish (Public Law 106-382)	\$25,691,000

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 in October 27, 2000. The request for fiscal year 2005 will continue the construction of the Missouri River water treatment plant, which will require fiscal year 2006 funds in the estimated amount of \$5 million for completion. The request will also complete the Culbertson to Medicine Lake Project, which was initiated in fiscal year 2003, and advance the construction of the Dane Valley/Bainville/East Medicine Lake Projects.

The project also has the capability beyond the amount requested, based on current status of design, to build the first portion of the pipeline leaving the water treatment plant at a cost of \$10 million. The pipeline 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 responsible non-Tribal oil company. 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 2005 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 2005 will also provide the capability to connect Bainville, Dane Valley and East Medicine Lake residents. The latter 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 as approved by the Bureau of Reclamation.

PROJECT STATUS AND COMPLETION

The Final Engineering Report (FER), water conservation plan and Finding of No Significant Impact were completed in fiscal year 2002. Congressional review of the project ended in August 2003, and construction began immediately. The Missouri River intake and the Culbertson to Medicine Lake pipeline projects are under construction and are scheduled for completion in October 2004.

Design of the water treatment plant is now well advanced. The design of the lagoons at the water treatment plant and the site landscaping will be completed in third-quarter fiscal year 2004, and construction of these preliminary facilities will begin in late fiscal year 2004. The main facility will begin construction in fiscal year 2005 at a cost of \$20 million.

Design of the Poplar to Big Muddy pipeline is well advanced and can be completed to utilize first quarter fiscal year 2005 funds, but the appropriation requirements to undertake this pipeline construction in combination with the water treatment plant are 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 2006 or fiscal year 2007. The discussion of this pipeline is intended to demonstrate the capability of the project to use funds prior to fiscal year 2007 if funding were available.

Similarly, the design of the branch pipelines that will serve rural residents between Culbertson and Medicine Lake is well ahead of funding. There is more capa-

bility to use funds than will be available in either fiscal year 2004 or fiscal year 2005.

The project master plan is provided for review on the following page.

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 expected development of meaningful water 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 authorizations and appropriations necessary for 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.

MASTER PLAN														
ASSNEDLINE SIOUX AND DRY PRAIRIE RWS														
FY 2004 UPDATE														
Segment	Total Cost (Oct 1999)	Total Cost (Oct 2003)	October 2003		Spent To Date 2003	Current Year Carryover 2003	FY2004 Funds	Balance To Complete	Fort Peck/ Dry Prairie	3 2006	Construction Year			Total
			Fort Peck Contract Cost	Dry Prairie Contract Cost							4 2007	5 2007	6 FY 2008 thru FY 2012	
Reservoir	2,880,000	4,223,000	4,223,000		0	1,893,000	2,620,000	0	Fort Peck	Fort Peck	0		0	4,223,000
Reservoir	16,734,000	18,618,000	18,618,000		0	0	625,000	17,793,000	Fort Peck	Fort Peck	0		0	16,618,000
Reservoir	22,881,000	27,011,000	27,011,000		0	0	0	27,011,000	Fort Peck	Fort Peck	0	11,500,000	15,511,000	0
Big Muddy to Playwood	3,734,000	4,447,000	4,447,000		0	1,148,000	2,988,000	331,000	Fort Peck	Dry Prairie	331,000	0	0	4,447,000
Colburn to Medicine Lake	6,617,000	8,617,000	8,617,000		0	0	0	8,617,000	Dry Prairie	Dry Prairie	8,617,000	0	0	8,617,000
Baile, Dale Valley and East Medicine Lake	15,699,000	15,699,000	15,699,000		0	0	0	15,699,000	Dry Prairie	Dry Prairie	15,699,000	0	0	15,699,000
Remaining	9,247,000	11,012,000	11,012,000		0	0	0	11,012,000	Fort Peck	Fort Peck	0	2,022,000	9,000,000	0
Highway 13 to FP Boundary	4,025,000	4,793,000	4,793,000		0	0	0	4,793,000	Dry Prairie	Dry Prairie	4,793,000	0	0	4,793,000
FP Boundary to Scurry	9,838,000	11,716,000	11,716,000		0	0	0	11,716,000	Dry Prairie	Dry Prairie	11,716,000	0	0	11,716,000
Scurry to Plantwood	7,946,000	9,462,000	9,462,000		0	0	0	9,462,000	Dry Prairie	Dry Prairie	9,462,000	0	0	9,462,000
Scurry to Osprey	14,889,000	17,731,000	17,731,000		0	0	0	17,731,000	Fort Peck	Fort Peck	0	10,000,000	7,731,000	0
Plantwood to Wolf Prairie	25,301,000	30,131,000	30,131,000		0	0	0	30,131,000	Fort Peck	Fort Peck	0	30,131,000	0	0
Wolf Prairie to Porcupine Cr	3,871,000	4,614,000	4,614,000		0	0	0	4,614,000	Dry Prairie	Dry Prairie	4,614,000	0	0	4,614,000
Porcupine Creek to Glasgow	3,566,000	4,175,000	4,175,000		0	0	0	4,175,000	Dry Prairie	Dry Prairie	4,175,000	0	0	4,175,000
Glasgow to Ophir	1,000,000	1,108,000	1,108,000		0	0	0	1,108,000	Fort Peck	Fort Peck	0	1,108,000	0	0
FP ON Buildings	900,000	954,000	954,000		0	0	0	954,000	Fort Peck	Fort Peck	0	954,000	0	0
DP ON Buildings	4,150,000	4,680,000	4,680,000		0	0	0	4,680,000	Fort Peck	Fort Peck	0	4,680,000	0	0
DP Electrical, Meters, Easements	3,957,000	3,957,000	3,957,000		0	0	0	3,957,000	Dry Prairie	Dry Prairie	3,957,000	0	0	3,957,000
DP Electrical, Meters, Easements	149,538,000	172,481,000	114,514,000		0	2,751,000	6,965,000	162,775,000	19,999,000	20,414,000	21,231,000	22,511,000	70,680,000	172,481,000
Subtotal														
Planning, Design, Admin														
Reclamation Oversight	6,021,000	7,436,000	4,833,000		474,000		270,000	6,857,000	686,000	617,000	849,000	900,000	3,228,000	7,436,000
Environmental Mitigation	755,000	930,000	604,000		14,000		12,000	946,000	15,000	102,000	106,000	113,000	570,000	930,000
Administration	10,691,000	13,204,000	8,329,000		799,000		544,000	11,237,000	1,206,000	1,206,000	1,206,000	1,206,000	4,645,000	13,204,000
Acquisition	3,360,000	4,174,000	3,297,000		23,000		34,000	4,129,000	22,000	22,000	22,000	22,000	4,041,000	4,174,000
Design	11,667,000	14,409,000	9,364,000		998,000		2,377,000	10,757,000	847,000	1,862,000	1,845,000	1,746,000	4,936,000	14,409,000
Inspection	10,536,000	13,012,000	8,456,000		10,000		173,000	12,570,000	1,077,000	1,429,000	1,466,000	1,576,000	7,802,000	13,012,000
Non-Federal	43,046,000	53,165,000	34,823,000		2,276,000		3,140,000	4,456,000	4,657,000	5,160,000	5,316,000	5,564,000	26,184,000	53,165,000
Total	192,598,000	226,646,000	149,337,000		2,276,000		5,891,000	8,411,000	24,026,000	25,571,000	26,547,000	28,075,000	104,844,000	226,646,000
Tribes (All Federal)	125,092,000	149,337,000	149,337,000		1,177,000		4,549,000	4,582,000	15,911,000	16,936,000	17,581,000	18,592,000	70,009,000	149,337,000
Dry Prairie	67,494,000	76,310,000	76,310,000		627,000		1,340,000	3,559,000	8,638,000	8,967,000	9,857,000	10,493,000	37,548,000	76,310,000
Federal	51,295,000	57,996,000	57,996,000		57,000		1,563,000	1,963,000	6,544,000	6,966,000	7,731,000	7,647,000	27,845,000	57,996,000
Non-Federal	16,190,000	18,314,000	18,314,000		18,000		1,037,000	1,593,000	1,571,000	1,677,000	1,726,000	1,636,000	9,903,000	18,314,000

NEED FOR WATER QUALITY IMPROVEMENT

The Fort Peck Indian Reservation was previously designated as an "Enterprise Community", underscoring the level of poverty and need for economic development in the region. The success of 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 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 2005

The administration's budget for fiscal year 2005 was severe disappointment. It was the only authorized project in the rural water category with construction underway that did not receive funding. Other projects authorized at the same time in both the rural water and water and related resources categories, of similar nature to this project, were generously funded. Of greatest concern now is the need for Reclamation to justify the zero funding amount. In all previous meetings with the Commissioner and his representatives and with OMB, no concerns with the project were raised other than the concerns raised with all projects that the Federal Budget is too constrained, non-Indians should bear a greater cost share and other priorities, such as homeland security, are more demanding of Federal funds. OMB specifically stated in our favor that the project had provided more support and justification of its benefits and costs than most Corps of Engineers and the Bureau of Reclamation projects prior to authorization. Under the circumstances, there is considerable concern on our part that previously undisclosed issues will be generated in support of the absence of a budget request.

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, and all 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. Bureau of Reclamation reviewed in writing all of these items thoroughly and formally 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 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 funding to be utilized on each project feature.

Clearly, the Fort Peck Reservation Rural Water System is well supported by the Bureau of Reclamation planners. Congress authorized the project with a plan formulated in full cooperation and collaboration with the Bureau of Reclamation, and major project features are under construction.

PREPARED STATEMENT OF THE COLORADO RIVER ENERGY DISTRIBUTORS ASSOCIATION

The Colorado River Energy Distributors Association (CREDA) appreciates the opportunity to submit its views on funding for specific programs of the Bureau of Reclamation and the Western Area Power Administration in the fiscal year 2005 Energy and Water Development appropriations bill. We look forward to working with you and the subcommittee on these issues of importance to electric consumers in the Colorado River Basin States. The first issue is a request for Federal funds to pay for costs of increased security at Federal multi-purpose dams. The Bureau of Reclamation has requested \$43 million for dams under its jurisdiction for fiscal year 2005. CREDA is attempting to determine whether this represents the total amount that will be spent by the Bureau for increased security in fiscal year 2005 or not. The second issue is a request for \$10,000,000 of additional funds for the Western Area Power Administration of the Department of Energy relating to the Animas-La Plata project.

CREDA is a non-profit, regional organization representing consumer-owned municipal and rural electric cooperatives, political subdivisions, irrigation and electrical districts and tribal utility authorities that purchase hydropower resources from the Colorado River Storage Project (CRSP). CRSP is a multi-purpose Federal project that provides flood control; water storage for irrigation, municipal and industrial purposes; recreation and environmental mitigation, in addition to the generation of electricity. CREDA was established in 1978, and serves as the “voice” of CRSP contractor members in dealing with resource availability and affordability issues. CREDA represents its members in dealing with the Bureau—as the owner and operator of the CRSP—and the Western Area Power Administration—as the marketing agency of the CRSP.

CREDA members serve nearly 3 million electric consumers in the six western States of Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming. CREDA's member utilities purchase more than 85 percent of the power produced by the CRSP. In addition, several Indian tribes have joined CREDA as affiliate members prior to receiving allocations of CRSP power on October 1, 2004.

With regard to the President's proposed fiscal year 2005 budget request, CREDA has two primary concerns:

NON-REIMBURSABILITY OF POST-9/11 SECURITY COST INCREASES

Federal multipurpose projects across the country provide millions of citizens with a multitude of benefits, including flood control, municipal, rural, and industrial water supply, navigation, recreation, and, of course, hydropower. Providing adequate security for these multi-purpose, federally owned facilities is important to all U.S. citizens. In the aftermath of the attacks on September 11, 2001, Federal agencies involved in the Federal power program (the U.S. Bureau of Reclamation, the U.S. Army Corps of Engineers, and the Federal Power Marketing Administrations) have determined that significant increases in security are needed, and will continue for years to come.

Adequately protecting and securing national assets, such as the Federal multi-purpose dams, comes with a price tag. In 1941 and 1942, Congress treated increased security costs before and after Pearl Harbor as non-reimbursable (e.g., as costs to be borne by the Federal Government and financed through appropriations, rather than reimbursed by hydropower customers) because of the obvious national security interest at stake and the benefits these projects offer to all Americans. Thus far, Congress has agreed with this historical precedent, as evidenced by Senate Appropriations report language for fiscal year 2003 and fiscal year 2004, which stated that funds made available to respond to the September 11, 2001, terrorist attacks shall be non-reimbursable and indicates these costs “are recurring” (S. Rept. 107–220 and S. Rept. 108–105). House report language for fiscal year 2003 also supported this view (H. Rept. 107–681).

The Bureau of Reclamation received \$28.4 million in the fiscal year 2003 Energy and Water Appropriations bill and an additional \$25 million in the 2003 Supplemental Appropriations bill to cover increased costs to protect Reclamation dams and

other facilities post September 11. The Bureau also received \$28.5 million for increased security costs in the fiscal year 2004 Energy and Water bill that was signed into law in December 2003. The Bureau of Reclamation recognized the above historical precedent and the sound policy behind it and, in fiscal year 2003 and 2004, administratively determined that additional security costs should be non-reimbursable (Bureau of Reclamation Commissioner Keys, April 2002). The Corps of Engineers did not, treating additional security investments at Corps facilities as reimbursable.

Due to budget constraints and pressures to control costs from the Office of Management and Budget (OMB), the President's fiscal year 2005 budget directs the Bureau and the Corps to recover some of the costs of increased security measures from entities that benefit from the multi-purpose projects. Given our past experience with the Bureau and the Corps, we believe that power customers will be unfairly singled out to pay the reimbursable costs.

The reasons that security costs at Federal dams should continue to be non-reimbursable are: (1) these facilities are Federal and multi-purpose in nature, and the benefits accrue to a vast number of citizens in many States; (2) protection of these Federal facilities is clearly in the national interest and should remain a Federal responsibility; and (3) by taking this funding stream out of the appropriations process, congressional oversight of Reclamation's use of the funds would be greatly diminished, thereby reducing accountability for the type and expense of the security measures imposed.

CREDA urges the committee to include the following statutory language in the fiscal year 2005 Water and Energy Development Appropriations bill, to clarify that the additional costs of securing facilities of the Bureau of Reclamation, the Corps of Engineers and the Federal power marketing administrations are a Federal responsibility and should be non-reimbursable:

"For fiscal year 2005 and each fiscal year thereafter, the increased costs of ensuring security of Bureau of Reclamation dams, federal power marketing administration facilities and Corps of Engineers multipurpose facilities in the aftermath of the events of September 11, 2001, shall be non-reimbursable and non-returnable."

ANIMAS-LA PLATA PROJECT

The Colorado Ute Settlement Act Amendments of 2000 (Title III, Section 301(b)(10), Public Law 106-554, December 21, 2000) authorized development of the Animas-La Plata Project to satisfy water right claims of the Southern Ute and Ute Mountain Ute Tribes in southwest Colorado (known collectively as the "Colorado Ute Indian Tribes"). The project requires construction of a reservoir, pumping plant and appurtenant facilities to provide water supply and delivery of municipal and industrial water and other benefits to the Tribes.

In order to provide power from the CRSP to the Durango Pumping Plant, transmission facilities will need to be constructed, operated and maintained by the Western Area Power Administration. These transmission facilities do not provide any benefit to CRSP power customers; they are required solely to deliver water to project beneficiaries.

The Western Area Power Administration will be responsible for construction, operation and maintenance of these transmission facilities, and requires additional appropriations in the amount of \$10,000,000 in fiscal year 2005 to meet the construction timetable established by the U.S. Bureau of Reclamation, the project manager. Since the transmission lines will power the pumping plant required for delivery of water to Native American and non-Native American municipal and industrial users, the costs related to the transmission facilities and services should not be borne by the CRSP power customers and should be considered non-reimbursable and non-returnable. To do otherwise could turn 102 years of Reclamation law on its head. Failure to address this issue in the fiscal year 2005 appropriations cycle could jeopardize the current construction schedule for the Animas-La Plata project and subject CRSP power customers and the consumers they serve to an unfair financial burden.

The Western Area Power Administration, the Bureau of Reclamation, the Colorado River Energy Distributors Association, the water users and the Colorado Ute Indian Tribes all support the inclusion of the following language in the fiscal year 2005 Energy and Water Development Appropriations bill:

"For carrying out the functions authorized by title III, section 302(a)(1)(E) of the Act of August 4, 1977 (42 U.S.C. 7152), and other related activities including conservation and renewable resources programs as authorized, including official reception and representation expenses in an amount not to exceed \$1,500, \$183,100,000 to remain available until expended, of which \$170,756,000 shall be derived from the Department of the Interior Reclamation Fund: Provided, That all authorities and fu-

ture contributions described in Section 402, subparagraph (b)(3)(B) of the Reclamation Projects Authorization and Adjustment Act of 1992 previously assigned to the Secretary of Energy, Western Area Power Administration, shall be transferred to the Secretary of the Interior, Bureau of Reclamation: Provided further, That of the amount herein appropriated, \$10,000,000 shall be available until expended on a nonreimbursable basis to the Western Area Power Administration to design, construct, operate and maintain transmission facilities and services for the Animas-La Plata Project as authorized by sections 301(b)(10) of Public Law 106-554.”

PREPARED STATEMENT OF THE MNI WICONI PROJECT

FISCAL YEAR 2005 CONSTRUCTION BUDGET REQUEST

The Mni Wiconi Project beneficiaries (as listed below) respectfully request appropriations and can demonstrate capability for construction in fiscal year 2005 in the amount of \$39,317,000 as follows:

	Amount
Oglala Sioux Rural Water Supply System:	
Core Facilities (Pipelines and Pumping Stations)	\$8,128,000
Distribution System on Pine Ridge	10,224,000
West River/Lyman-Jones Rural Water System	11,020,000
Rosebud Sioux Rural Water System	7,325,000
Lower Brule Sioux Rural Water System	2,620,000
Total Mni Wiconi Project	39,317,000

The project sponsors were provided by the 107th Congress (Public Law 107-367) with all the authority necessary to finish this project at the level of development originally intended on a schedule through fiscal year 2008. Completion of the project is now clearly achievable as shown in the table below:

Total Federal Required (October 2003 Dollars)	\$409,523,000
Estimated Federal Spent Through Fiscal Year 2004	\$278,110,000
Percent Spent	67.9
Amount Remaining	\$131,413,000
Years to Completion	4
Average Required for Fiscal Year 2008 Finish	\$32,853,000

The administration's budget for this project in fiscal year 2005 (\$18.2 million for construction) is a disappointment for a second year in a row. The amount requested by the administration falls far short of the average amount needed to complete the project in fiscal year 2008. The needs and merits of this project are considerable as described in section 3.

The project's operation, maintenance and replacement request from the sponsors is in addition to the construction request and is presented in section 8.

OSRWSS CORE PIPELINE TO REACH PINE RIDGE INDIAN RESERVATION IN FISCAL YEAR 2005

OGLALA SIOUX WATER SUPPLY SYSTEM CORE REQUEST

	Amount
South Core:	
Stamford to Kadoka:	
Reservoir to Kadoka Pipeline	\$1,036,000
Pump Station, 2 Reservoirs	2,111,000
Kadoka to White River Pipeline	2,587,000
North Core:	
WTP toward Hayes Pipeline	2,394,000
Total	8,128,000

The Pine Ridge Indian Reservation and parts of West River/Lyman-Jones remain without points of interconnection to the OSRWSS core. The requested funding level

for the OSRWSS core of \$8.128 million will complete the project from Stamford to the northeast corner of the Pine Ridge Indian Reservation where, in combination with the western part of West River/Lyman-Jones, the remaining 50 percent of the design population resides. Funds will also be used by the Oglala Sioux Tribe to build the North Core westerly toward Hayes in the West River Lyman Jones service area with the intent to complete the OSRWSS North Core and all other core facilities in fiscal year 2007. Two additional years of funding will be required to complete the OSRWSS North Core system to serve the Reservation.

The 2000 census confirms that the Oglala Sioux population on Pine Ridge is growing at a rate of 27 percent per decade or 1½ times greater than projected from the 1990 census. Delivery of Missouri River water to this area is urgently needed.

All proposed OSRWSS construction activity will build pipelines that will provide Missouri River water immediately to beneficiaries. In many cases, construction of interconnecting pipelines by other sponsors is ongoing, and fiscal year 2005 funds are required to complete projects that will connect with the OSRWSS core and begin others.

Funding for OSRWSS core and distribution facilities is necessary to bring economic development to the Pine Ridge Indian Reservation, designated as one of five national rural empowerment zones by the previous administration. The designation serves to underscore the level of need. Economic development is largely dependent on the timely completion of a water system, which depends on appropriations for this project.

Finally, the subcommittee is respectfully requested to take notice of the fact that fiscal year 2005 will significantly advance construction of facilities that continues our progress toward the end of the project. The subcommittee's past support has brought the project to the point that the end can be seen. Key to the conclusion of the project in fiscal year 2008 is the completion of the OSRWSS core to the Pine Ridge Indian Reservation. Toward this end, funds are included in the fiscal year 2005 budget to build the connecting pipelines between the northeast corner of the Pine Ridge Indian Reservation and the central portion of the Reservation near Kyle. Rosebud is similarly engaged in the construction of major connecting pipelines that will deliver water southerly to the central portions of the Rosebud Indian Reservation and to service areas for West River/Lyman-Jones.

UNIQUE NEEDS OF THIS PROJECT

This project covers much of the area of western South Dakota that was formerly the Great Sioux Reservation established by the Treaty of 1868. Since the separation of the Reservation in 1889 into smaller more isolated reservations, including Pine Ridge, Rosebud and Lower Brule, tensions between the Indian population and the non-Indian settlers on former Great Sioux lands have been high with little easing by successive generations. The Mni Wiconi Project is perhaps the most significant opportunity in more than a century to bring the sharply diverse cultures of the two societies together for a common good. Much progress has been made due to the good faith and genuine efforts of both the Indian and non-Indian sponsors. The project is an historic basis for renewed hope and dignity among the Indian people. It is a basis for substantive improvement in relationships.

Each year our testimony addresses the fact that the project beneficiaries, particularly the three Indian Reservations, have the lowest income levels in the Nation. The health risks to our people from drinking unsafe water are compounded by reductions in health programs. We respectfully submit that our project is unique and that no other project in the Nation has greater human needs. Poverty in our service areas is consistently deeper than elsewhere in the Nation. Health effects of water-borne diseases are consistently more prevalent than elsewhere in the Nation, due in part to (1) lack of adequate water in the home and (2) poor water quality where water is available. Higher incidences of impetigo, gastroenteritis, shigellosis, scabies and hepatitis-A are well documented on the Indian reservations of the Mni Wiconi Project area. At the beginning of the third millennium one cannot find a region in our Nation in which social and economic conditions are as deplorable. These circumstances are summarized in Table 1. Mni Wiconi builds the dignity of many, not only through improvement of drinking water, but also through direct employment and increased earnings during planning, construction, operation and maintenance and from economic enterprises supplied with project water. We urge the subcommittee to address the need for creating jobs and improving the quality of life on the Pine Ridge and other Indian reservations of the project area.

Employment and earnings among the Indian people of the project area are expected to positively impact the high costs of health care borne by the United States and the Tribes. Our data suggest clear relationships between income levels and Fed-

eral costs for heart disease, cancer and diabetes. During the life of the Mni Wiconi Project, mortality rates among the Indian people in the project area for the three diseases mentioned will cost the United States and the Tribes more than \$1 billion beyond the level incurred for these diseases among comparable populations in the non-Indian community within the project area. While this project alone will not raise income levels to a point where the excessive rates of heart disease, cancer and diabetes are significantly diminished, the employment and earnings stemming from the project will, nevertheless, reduce mortality rates and costs of these diseases. Please note that between 1990 and 2000 per capita income on Pine Ridge increased from \$3,591 to \$6,143, and median household income increased from \$11,260 to \$20,569, due in large part to this project, albeit not sufficient to bring a larger percentage of families out of poverty (Table 1).

TABLE 1.—PROFILE OF SELECTED ECONOMIC CHARACTERISTICS: 2000

Indian Reservation/State	2000 Population	Change from 1990 (Percent)	Income		Families Below Poverty (Percent)	Unemployment (Percent)
			Per Capita (Dollars)	Median Household (Dollars)		
Pine Ridge Indian Reservation	15,521	27.07	6,143	20,569	46.3	16.9
Rosebud Indian Reservation	10,469	7.97	7,279	19,046	45.9	20.1
Lower Brule Indian Reservation	1,353	20.48	7,020	21,146	45.3	28.1
State of South Dakota	754,844	8.45	17,562	35,282	9.3	3.0
Nation	281,421,906	13.15	21,587	41,994	9.2	3.7

Financial support for the Indian membership has already been subjected to drastic cuts in funding programs through the Bureau of Indian Affairs. This project is a source of strong hope that helps off-set the loss of employment and income in other programs and provide for an improvement in health and welfare. Tribal leaders have seen that Welfare Reform legislation and other budget cuts Nation-wide have created a crisis for tribal government because tribal members have moved back to the reservations in order to survive. Economic conditions have resulted in accelerated population growth on the reservations.

The Mni Wiconi Project Act declares that the United States will work with us under the circumstances:

“ . . . the United States has a trust responsibility to ensure that adequate and safe water supplies are available to meet the economic, environmental, water supply and public health needs of the Pine Ridge, Rosebud and Lower Brule Indian Reservations . . . ”.

Indian support for this project has not come easily because the historical experience of broken commitments to the Indian people by the Federal Government is difficult to overcome. The argument was that there is no reason to trust and that the Sioux Tribes are being used to build the non-Indian segments of the project and the Indian segments would linger to completion. These arguments have been overcome by better planning, an amended authorization and hard fought agreements among the parties. The subcommittee is respectfully requested to take the steps necessary the complete the critical elements of the project proposed for fiscal year 2004.

The following sections describe the construction activity in each of the rural water systems.

OGLALA SIOUX RURAL WATER SUPPLY SYSTEM—DISTRIBUTION

OGLALA SIOUX WATER SUPPLY SYSTEM DISTRIBUTION REQUEST

	Amount
West Boundary Supply	\$506,000
Manderson Loop	1,454,000
Rockyford to Redshirt	179,000
White River to HWY 73/44 Junction:	
Pump Station, Service Lines and Reservoirs	3,127,000
HWY 73/44 Junction to Kyle	4,923,000
Indefinite quantities	35,000
TOTAL	10,224,000

With the conclusion of projects under construction in fiscal year 2002, the Oglala Sioux Tribe completed all facilities that can be supported from local groundwater. The Tribe, representing more than 40 percent of the project population will rely on the OSRWSS core to convey Missouri River water to and throughout the Reservation. Much pipeline has been constructed, primarily between Kyle, Wounded Knee and Red Shirt and between Pine Ridge Village and the communities of Oglala and Slim Buttes. Additional construction of the Manderson Loop is proposed in fiscal year 2005.

Of particular importance to the Oglala Sioux Tribe is the continuation of the main transmission system from the northeast corner (Highway 73/44 junction) of the Reservation to Kyle in the central part of the Reservation. The transmission line is needed to interconnect the OSRWSS core system with the distribution system within the Reservation in order to deliver Missouri River water to the populous portions of the Reservation. This critical segment of the project can be continued in fiscal year 2005 to coincide with the westward construction of the OSRWSS core to the northeast corner of the Reservation (see section 2). It will require funds in fiscal year 2006 and fiscal year 2007 to complete. This component of the Oglala system has been deferred for several years due to inadequate funding. The component is urgently needed for the OSRWSS core system to be utilized on the Pine Ridge Indian Reservation.

WEST RIVER/LYMAN-JONES RURAL WATER SYSTEM—DISTRIBUTION

WR/LJ RURAL WATER SYSTEM DISTRIBUTION REQUEST

	Amount
Mellette East	\$533,000
Moenville	9,566,000
Quinn Town Distribution	176,000
Vivian Town	441,000
Indefinite Quantities	304,000
Total	11,020,000

Continued drought conditions in the project area have created serious health and economic hardships for WR/LJ members waiting to receive Mni Wiconi water service. A survey of members attending the WR/LJ annual meeting on October 8, 2003 in Midland revealed that, of those members not receiving project water, 67 percent were hauling water for domestic use and 45 percent were hauling water for livestock. Their current source of water, highly mineralized wells and dried up dams, present a serious health hazard and unaffordable increases in production costs due to the time and cost of hauling water.

The requested appropriation is directed to serving members between Ft. Pierre and Philip. The highest priority is completion of the Moenville project. Houston Rose, prior to his death, pioneered initial efforts to bring quality water to this WR/LJ service area closest to the Mni Wiconi water treatment plant. The economy of the area he represented is based on livestock operations that are dependent on quality water supplies.

WR/LJ is now the water service provider in the towns of Quinn and Vivian, however, the existing distribution piping is over 50 years old and is a very high priority for replacement. Funding is also requested for the construction of pumping station and reservoirs required to deliver the full design capability of the pipelines under construction. As a testimony to public recognition of the advantages of quality water and the reliability of the system WR/LJ continues to add users within those areas previously constructed. These additions are being financed by member contributions as part of the statutory non-Federal matching requirement.

The Mni Wiconi project, due to continued congressional support, has progressed to where the project beneficiaries can look forward to its timely completion and receive the intended project benefits. We sincerely appreciate your support.

ROSEBUD RURAL WATER SYSTEM (SICANGU MNI WICONI)

ROSEBUD SIOUX RURAL WATER SYSTEM REQUEST

	Amount
Hidden Timber	\$1,317,000

ROSEBUD SIOUX RURAL WATER SYSTEM REQUEST—Continued

	Amount
Rosebud Improvements	737,000
Rural Antelope	866,000
Okreek	2,030,000
Mission Northwest	447,000
Livestock Water	1,271,000
Service Connections	657,000
Total	7,325,000

Fiscal year 2005 efforts build upon the successes of the past 2 years. The Rosebud Core pipeline will begin providing water from the OSRWSS at Murdo to Rosebud and WR/LJ water users in Mellette County. As a result, the limited supply of high quality ground water available from the Rosebud wellfield can be used as a source of supply for northeast Todd County.

The Rosebud Sioux Tribes efforts in fiscal year 2005 focus on connecting additional homes to new and existing pipelines. The Antelope to Okreek Pipeline, completed in late 2003, provides a supply of high quality ground water to the rural Antelope, northwest Mission, Hidden Timber and Okreek project areas. In this portion of northern Todd County, the Ogallala Aquifer is not present and ground water is of poor quality and limited quantity where available. Private and community wells have failed in the area and while the Antelope to Okreek Pipeline solved the problem for the community of Okreek, many rural residents are anxiously waiting for water.

The problems are exacerbated in the Hidden Timber area. Where ground water occurs, nitrate concentrations are frequently in excess of the Safe Drinking Water Act primary standard. The high nitrate concentrations pose an acute threat to the unborn and young children.

The major features of the proposed fiscal year 2005 work plan focus on distribution and service lines for this area. Proposed projects for this area include Rural Antelope, Mission Northwest, Okreek and Hidden Timber. It is envisioned that both private contractors and the tribal construction program would be responsible for construction.

The other major project proposed for fiscal year 2005 address improvements needed in the community of Rosebud. In fiscal year 2004, the Tribe will be connecting the lower older part of Rosebud to the rural water system. While this will improve the quality and reliability of supply, improvements are needed to ensure water reaches the users. In several areas, older cast iron pipe has corroded and needs to be replaced. In other areas, older asbestos concrete pipe is still in use and felt to be a health threat. The focus of the work in Rosebud in fiscal year 2005 is to provide a reliable source of high quality water to all service connections.

The Tribe will also expand its service line program. The focus of this effort is new homes and homes that have been constructed since transmission or distribution lines have been installed. It is also proposed to start developing livestock watering facilities. The Tribe has not constructed any of these facilities to date with Mni Wiconi funding and the reality of prolonged drought is having an affect on historic livestock watering sources of supply. A reliable source of water for livestock is necessary to maintain one of the more viable components of the reservation economy.

The total amount requested for the Sicangu Mni Wiconi in fiscal year 2005 is \$7,325,000.

LOWER BRULE RURAL WATER SYSTEM—DISTRIBUTION

The Lower Brule Rural Water System (LBRWS) has gained the support of the other sponsors to complete its share of the project with funds appropriated in fiscal year 2005 budget, based on an appropriation of funds for the project in the range generally received. This support is not only a benefit for LBRWS and its users but to the project as a whole. By funding LBRWS in this manner, a savings of approximately \$1.5 million will be experienced by the project.

With the funds received in fiscal year 2004, LBRWS will complete the design, cultural resource evaluation and the securing of easements for the remaining service areas and installing mainlines and service lines required to provide water to all of the homes on the Lower Brule Indian Reservation. The fiscal year 2004 funds will also allow LBRWS to begin installing water lines to pasture taps. Since the area has experienced 2 years of drought conditions, many of the dams are dry. The provi-

sion of water will allow some pastures to be utilized that would have otherwise been of no benefit to the ranchers.

The fiscal year 2005 funds will allow the completion of the installation of pasture taps and a new 400,000 gallon elevated water tank in Lower Brule. The existing tank is in a location where the slides (soil movement) have occurred. As a result, the stability of the tank's foundation is in question.

OPERATION, MAINTENANCE AND REPLACEMENT BUDGET

The sponsors have and will continue to work with Reclamation to ensure that their budgets are adequate to properly operate, maintain and replace (OMR) their respective portions of the overall system. The sponsors will also continue to manage OMR expenses in a manner ensuring that the limited funds can best be balanced between construction and OMR. In fiscal year 2003, the approved budget for OMR was \$8.228 million, which was adequate. Funding was not adequate in fiscal year 2004 at the \$6.254 level and will not be adequate at the same leveling the administration's proposed fiscal year 2005 budget of \$6.254 million for OMR.

The project has been making significant progress especially over the last 2 years with the initiation of operation of the OSRWSS Water Treatment Plant near Ft. Pierre and the installation of a significant quantity of pipeline. The result is the need for sufficient funds to properly operate and maintain the functioning system throughout the project. As a result, the OMR budget must continue to be adequate to keep pace with the portion of the system that is placed in operation.

In addition to ongoing operation and maintenance activities, water conservation is an integral part of the OMR of the project. Water conservation not only provides immediate savings from reduced water use and production, it also extends the useful life and capacity of the system. Proposed funding is not adequate to perform water conservation functions.

PREPARED STATEMENT OF THE REDLANDS WATER & POWER COMPANY

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

These funds are authorized by Public Law 106-392. Substantial non-Federal cost sharing funds are provided by the States of Colorado, Wyoming, Utah, and New Mexico, power users, and water users in support of these recovery programs. These programs are carried out consistent with State law and interstate water compacts.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE RED RIVER VALLEY ASSOCIATION

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.

The Resolutions contained herein were adopted by the Association during its 79th Annual Meeting in Bossier City, Louisiana on February 19, 2004, and represent the combined concerns of the citizens of the Red River Basin Area as they pertain to the goals of the Association.

Our western rivers played a very important part in the development and economic success of the States west of the Mississippi River. An agency responsible for the development of those water resources has been the Bureau of Reclamation. In our four State region they have been most active in Oklahoma.

I would like to comment on two specific requests for the future economic well being of the citizens residing in the Red River Valley region in Oklahoma. We support the following two studies and request that the Bureau of Reclamation be funded at their full fiscal year 2005 capability.

North Fork of the Red River, OK, Investigation Study.—The W.C. Austin (Altus Lake and Dam) Project in southwestern Oklahoma, is authorized to provide water for irrigation to approximately 48,000 acres of privately owned land in southwestern Oklahoma; control flooding on the North Fork of the Red River and augment municipal water supply for the City of Altus. Secondary benefits include fish and wildlife conservation and recreation opportunities. Project features include Altus Dam, four canals, a 221-mile lateral distribution system and 26 miles of drains. The Lugert-Altus Irrigation District (LAID) is responsible for operation and maintenance of the project.

Water demand in the District and region is growing which, in turn, is reducing future water availability and economic development opportunities. This proposed investigation would: (1) develop a hydrologic model of the NFRR watershed; and (2) evaluate opportunities for augmenting water availability in the project region.

We support a 3-year comprehensive evaluation of water resources in the North Fork of the Red River in Oklahoma for a total study cost of \$670,000. We sincerely appreciate your support in allocating \$150,000 in the fiscal year 2004 appropriations.

An allocation of \$150,000 is requested for the fiscal year 2005 appropriations.

Arbuckle-Simpson Aquifer Study.—The Arbuckle-Simpson Aquifer has been designated a sole source aquifer by EPA and a large number of Oklahomans depend on its protection for their health and economic future. This is an important source of water supply for: the citizens of Ada, Sulphur, Mill Creek and Roff; the Chickasaw National Recreational Area; Chickasaw and Choctaw Tribal members; and many farmers and ranchers owning land overlying the basin. Contributions from the aquifer also provide the perennial flow for many streams and natural springs in the area. The Arbuckle-Simpson Aquifer underlines approximately 500 square miles of south-central Oklahoma.

During recent years, a number of issues have emerged which have caused concerns about the utilization and continued health of the aquifer. These concerns include issues over water use, exportation of water out of the area, impacts of groundwater development on the flows in the significant springs and rivers, and competition for water and water quality.

In order to assure the future well-being of the aquifer we support a 5-year study to include detailed assessments of: the formation's hydrogeology, water quality and vulnerability; groundwater-surface water interactions; land use changes and related impacts; Tribal-State water rights; and overall management of the resources. The initial estimates put the total study cost at \$2.7 million; however, due to its complexity and new issues concerning Chickasaw and Choctaw Tribal interest, a better cost estimate will be known after the second year of the study. We appreciate your support of this study by funding the first year of the study in the fiscal year 2004 appropriations for \$700,000.

We request \$1,000,000 be appropriated for fiscal year 2005 and support that the study be cost shared, 90 percent Federal and 10 percent State/Local funds.

The Red River Valley Association understands these are difficult times with our Nation's budget, so we appreciate your support for these studies in fiscal year 2004. We feel they are extremely important to the welfare of the citizens in Oklahoma and request that you again support these studies in fiscal year 2005.

We are always available to provide additional information and answer whatever questions you may have.

PREPARED STATEMENT OF THE SANTA CLARA VALLEY WATER DISTRICT

CALFED BAY-DELTA PROGRAM, SANTA CLARA COUNTY, CALIFORNIA

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 de-

mand. 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 2004 Funding.—An amount of \$9 million was appropriated for CALFED activities under the various units of the Central Valley Project in fiscal year 2004.

Fiscal Year 2005 Funding Recommendation.—It is requested that the committee support an appropriation add-on of \$15 million, in addition to the \$15 million in the administration's fiscal year 2005 budget, for a total of \$30 million for California Bay-Delta Restoration.

SAN LUIS RESERVOIR LOW POINT IMPROVEMENT PROJECT

Background.—San Luis Reservoir is one of the largest reservoirs in California, and is the largest "off-stream" water storage facility in the world. The Reservoir has a water storage capacity of more than 2 million acre-feet and is a key component of the water supply system serving the Federal Central Valley Project (CVP) and California's State Water Project. San Luis is used for seasonal storage of Sacramento-San Joaquin delta water that is delivered to the reservoir via the California Aqueduct and Delta-Mendota Canal. The San Luis Reservoir is jointly owned and operated by the U.S. Bureau of Reclamation and the California Department of Water Resources.

The San Luis Reservoir provides the sole source of CVP water supply for the San Felipe Division contractors—Santa Clara Valley Water District (District), San Benito County Water District and, in the future, Pajaro Valley Water Management Agency. When water levels in San Luis Reservoir are drawn down in the spring and summer, high water temperatures result in algae blooms at the reservoir's water surface. This condition degrades water quality, making the water difficult or impractical to treat and can preclude deliveries of water from San Luis Reservoir to San Felipe Division contractors. In order to avoid the low point problem, the reservoir has been operated to maintain water levels above the critical low elevation—the "low point"—resulting in approximately 200,000 acre-feet of undelivered water to south of the Delta State and Federal water users. The frequency of the low point problem will increase in the future as delta pumping becomes more restricted and demands grow for full allocation and use of all of the water in San Luis Reservoir.

Project Goals and Status.—The goal of the project is to increase the operational flexibility of storage in San Luis Reservoir and ensure a high quality, reliable water supply for San Felipe Division contractors. The specific project objectives are to:

- Increase the operational flexibility of San Luis Reservoir by increasing the effective storage.
- Ensure that San Felipe Division contractors are able to manage their annual Central Valley Project contract allocation to meet their water supply and water quality commitments.
- Provide opportunities for project-related environmental improvements.
- Provide opportunities for other project-related improvements.

From the Public Scoping meetings held in August 2002 and working with a Stakeholder Committee and Regulatory Agencies, the District identified approximately 75 conceptual solutions to the low point problem. From these, the District has narrowed down the list of conceptual solutions to seven feasible alternatives to be studied in the environmental review process.

Fiscal Year 2004 Funding.—No appropriation was requested in fiscal year 2004.

Fiscal Year 2005 Funding Recommendation.—It is requested that the committee support authority for the U.S. Bureau of Reclamation to conduct feasibility studies of the San Luis Reservoir low point problem and an appropriation add-on of \$5.5 million.

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. Summertime 2003 deliveries averaged 10 million gallons per day of recycled water. The system now serves over 450 customers and delivers over 7,000 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 \$26.5 million of the \$35 million authorization.

Fiscal Year 2004 Funding.—An amount of \$3 million was appropriated in fiscal year 2004 for project construction.

Fiscal Year 2005 Funding Recommendation.—It is requested that the congressional committee support an appropriation add-on of \$3 million in fiscal year 2005 budget to fund the work.

PREPARED STATEMENT OF THE SOUTHWESTERN WATER CONSERVATION DISTRICT

Chairman Domenici and Senator Reid, the Southwestern Water Conservation District (the "District") is a political subdivision of the State of Colorado formed by the Colorado legislature in 1937 under C.R.S. 37-47-101, et seq. The District is charged with conserving and developing the waters of the San Juan and Dolores Rivers, tributaries to the Colorado River.

On behalf of the District, we are writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 included as an item in the administration's proposed budget for the Bureau of Reclamation ("Reclamation") labeled "Endangered Species Recovery Programs and Activities for the Upper Colorado River Region". Of that amount, \$691,000 is designated for construction activities under the San Juan River Basin Recovery Implementation Program ("San Juan Program") and \$4,008,000, is designated for similar construction activities under the Recovery Im-

plementation Program for Endangered Fish Species in the Upper Colorado River Basin ("Upper Basin Program"). In addition, \$535,000 is designated for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of endangered fish passages, floodplain restoration activities, screening of existing diversion canals, endangered fish propagation facilities, endangered fish stocking, and non-native fish management.

These cooperative programs involving the States of Colorado, New Mexico, Utah and Wyoming, four Indian tribes, Federal agencies and water, power and environmental interests are ongoing in the Upper Colorado River and San Juan River Basins and have as their objective recovering endangered fish species while water development proceeds in compliance with the Endangered Species Act, State water law, and inter-State water compacts.

The San Juan Program is supported by the States of Colorado and New Mexico, the Southern Ute Indian, Jicarilla Apache and Ute Mountain Ute Tribes and the Navajo Nation, water development interests, Reclamation, the Bureau of Indian Affairs, the Bureau of Land Management, and the U.S. Fish and Wildlife Service ("FWS"). The Program provides Endangered Species Act compliance for new depletions and for 600,000 acre-feet of existing depletions in Colorado and New Mexico, including the Animas-La Plata and the San Juan-Chama Projects, which are to provide water as part of tribal reserved water rights settlements. In addition, the Program provided the ESA compliance for a 121,000 acre-foot/year depletion to complete the Navajo Indian Irrigation Project.

In fiscal year 2005, the San Juan Program will continue substantial recovery activities that include habitat restoration, endangered fish propagation, and the development of fish passage structures in the San Juan River to expand the available habitat for the endangered fish.

The Upper Basin Program is supported by the States of Colorado, Utah and Wyoming, environmental organizations, power users, water development interests, Reclamation, the FWS, and the Western Area Power Administration. This Recovery Program, now in its fifteenth year of operation, has the objective of cooperatively recovering four endangered fish in compliance with the Endangered Species Act while water development moves forward. Beginning in fiscal year 1994, the Upper Basin Program initiated specific studies and actions in preparation for the construction activities necessary to recover the endangered fish.

The fiscal year 2005 funds for both Programs will enable their vital activities to continue and to be successfully completed in subsequent fiscal years. The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. We request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE SOUTHEASTERN COLORADO WATER CONSERVANCY
DISTRICT

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

These funds are authorized by Public Law 106-392. Substantial non-Federal cost sharing funds are provided by the States of Colorado, Wyoming, Utah, and New Mexico, power users, and water users in support of these recovery programs. These programs are carried out consistent with State law and inter-State water compacts.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE UPPER GUNNISON RIVER WATER CONSERVANCY
DISTRICT

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

These funds are authorized by Public Law 106-392. Substantial non-Federal cost sharing funds are provided by the States of Colorado, Wyoming, Utah, and New Mexico, power users, and water users in support of these recovery programs. These programs are carried out consistent with State law and interstate water compacts.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF THE COLORADO RIVER CONGRESS

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

These funds are authorized by Public Law 106-392. Substantial non-Federal cost sharing funds are provided by the States of Colorado, Wyoming, Utah, and New Mexico, power users, and water users in support of these recovery programs. These programs are carried out consistent with State law and interstate water compacts.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

PREPARED STATEMENT OF DENVER WATER

Chairman Domenici and Senator Reid, I am writing to request your support for an appropriation in fiscal year 2005 of \$5,234,000 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 2005 includes this line-item amount. Of these funds, I respectfully request the designation of \$4,008,000 for the Upper Colorado River Endangered Fish Recovery Program; \$691,000 for the San Juan River Basin Recovery Implementation Program and \$535,000 for Fish and Wildlife Management and Development, consistent with the President's budget request. The requested fiscal year 2005 appropriation will allow construction of fish passage, floodplain restoration activities, screening of existing diversion canals, propagation facilities, endangered fish stocking, and non-native fish management.

These funds are authorized by Public Law 106-392. Substantial non-Federal cost sharing funds are provided by the States of Colorado, Wyoming, Utah, and New Mexico, power users, and water users in support of these recovery programs. These programs are carried out consistent with State law and interstate water compacts.

The past support and assistance of your subcommittee has greatly facilitated the success of these multi-State, multi-agency programs. I request the subcommittee's

assistance relative to fiscal year 2005 funding to ensure the Bureau of Reclamation's continuing financial participation in these vitally important programs.

DEPARTMENT OF ENERGY

PREPARED STATEMENT OF THE HEALTH PHYSICS SOCIETY (HPS) AND HEALTH PHYSICS PROGRAM DIRECTORS ORGANIZATION (HPPDO)

This written testimony for the record for fiscal year 2005 requests \$500,000 for the Health Physics Graduate Fellowship program through the Department of Energy's Office of Nuclear Energy, Science and Technology (DOE-NE) to help address the shortage of Health Physicists, which is an issue of extreme importance to the safety of our Nation's workers, members of the public, and our environment.

The Department of Energy has recognized that 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. The 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), are very pleased that DOE-NE brought this crisis to the attention of the committee and has committed to take action to address it. In his testimony to the committee on March 3, 2004, William D. Magwood, IV, Director of the Office of Nuclear Energy, Science and Technology, stated, "The Department is concerned that the Nation may soon not have the trained health physicists who are needed to assure the safety of all nuclear and radiological activities. With this budget, we begin building a program to reverse the negative trends in this field as we have already done in nuclear engineering."

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. In Senate Report 108-105, the committee also recognized the need to support health physics academic programs as part of this effort when it wrote, "The Committee recommendation strongly encourages the Department to request sufficient funding in future years to fund all meritorious proposals, including appropriate proposals to support health physics university programs."

We applaud DOE's response to the committee's encouragement by including, in the words of Director Magwood, "... a small but important element to provide scholarships and graduate fellowships to students studying the vital and too-often overlooked discipline of health physics" and we are appreciative of having the \$200,000 in the President's proposed budget applied to health physics programs.

However, the HPS and HPPDO believe that in order to meet the supply needs of health physicists funding for the health physics programs should be at least \$500,000 in order to build a program to reverse the negative trend.

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, projecting a shortage of over 100 health physicists by 2011. The number of health physics program graduates in 2001 was one-half the number in 1996. A matter of great concern is that the NEI study does not address the impact that the lack of sufficient qualified radiation safety professionals will have on our Nation's health and homeland security programs. For example, the homeland security effort to provide training and radiation detection instruments to first responders, to establish guidelines for responding to a radiological terrorist event, to develop and deploy measures for the interdiction of radioactive materials beyond our borders, and to employ nuclear and radiation technology in screening for contraband materials requires health physics professionals. A recent survey conducted by the Health Physics Society indicates that present demand for radiation safety professionals is approximately 130 percent of supply. The NEI study projects a growth in that number to 400 percent by 2011 in the nuclear industry alone.

We submitted testimony to the committee last year that requested approximately \$2 million in fiscal year 2005 and included a plan we felt would stem the decline of health physics university academic programs, and would assist in the public's understanding of radiation safety as it is applied to the Nation's energy, health, and security policies. That plan included academic program support for HP Graduate

Fellowship Programs, HP Undergraduate Scholarship Programs, Health Physics Education & Research (HPER) Grants, and HP Minority-Majority Partnerships. It also included Health Physics Society program support for academic program ABET-ASAC Accreditation and HPS Science Teacher Workshops. We are realistic about the pressures of this year's budget and realize all six of these of these programs cannot be supported this fiscal year.

We consider it important program to address immediately the HP Graduate Fellowship program. We need between 15 and 20 fellows in a 2-year Masters Degree program to start meeting our Nation's manpower needs for radiation safety personnel. A single fellowship would be about \$30,000 annually, considering stipend, tuition and fees. Funding of \$500,000 would allow for approximately 15 fellows and allowance for overhead administration costs. Funding at the administration's budget request of \$200,000 would support approximately 6 fellows, less than half of the minimum need.

The committee's favorable consideration of this request will help meet our Nation's radiation safety needs of the future.

PREPARED STATEMENT OF THE AMERICAN NUCLEAR SOCIETY

Mr. Chairman and members of the subcommittee, on behalf of the American Nuclear Society, I would like to express our concern regarding recent changes in the direction of U.S. fusion research. In a letter exchange with Dr. John Lindl of the Lawrence Livermore National Laboratory, Dr. Raymond Orbach, the Director of the DOE Office of Science stated the current administration position: "now is not the right time for us to invest in energy related R&D for fusion, for either MFE (magnetic fusion energy) or for IFE (inertial fusion energy)". This position has been reflected in the Office of Fusion Energy Science fiscal year 2005 budget request in which the so-called "long-range" fusion technology research activities have been terminated. DOE has also been reducing its efforts on the advanced design of fusion energy systems. The total funding cut in these areas is about \$9 million from the fiscal year 2003 level.

With these changes, U.S. magnetic fusion energy research will become effectively a plasma physics research program while inertial fusion energy research will become a high-energy-density physics program. As the eliminated programs represent less than 5 percent of fusion research expenditures, their elimination is based mainly on policy grounds (as opposed to cost saving reasons).

It is difficult to understand this decision to terminate the fusion technology program given the support for fusion energy research at the highest administration levels,¹ the plan for the United States to join construction of the ITER device which is the highest priority facility listed in DOE Office of Science's Strategic Plan,² and the continuing construction of the National Ignition Facility (NIF).

It would seem prudent to maintain some balance in the program between science and technology and between MFE and IFE. This is reflected in several statements from the Fusion Energy Science Advisory Committee (FESAC, which provides ad-

¹See for example President Bush's February 2003 statement at <http://www.whitehouse.gov/news/releases/2003/02/20030206-12.html>:

"We're also going to work to produce electricity and hydrogen through a process called fusion. Fusion is the same kind of nuclear reaction that produces—that powers the sun. The energy produced will be safe and clean and abundant. We've spent quite a bit of money, as the senators here will tell you, on whether or not fusion works. And we're not sure if it will be able to produce affordable energy for everyday use. But it's worth a try. It's worth a look. Because the promise is so great.

"So the United States will work with Great Britain and several European nations, as well as Canada, Japan, Russia and China, to build a fusion test facility and create the largest and most advanced fusion experiment in the world. I look forward to working with Congress to get it funded. I know you all have considered this in the past. It's an incredibly important project to be a part of.

"Imagine a world in which our cars are driven by hydrogen and our homes are heated by electricity from a fusion power plant. It'll be a totally different world than what we're used to . . .".

See also Secretary Abraham's January 2003 statement (at <http://fire.pppl.gov/>) specifically stating that: "It is imperative that we maintain and enhance our strong domestic research program . . . Critical science needs to be done in the U.S., in parallel with ITER, to strengthen our competitive position in fusion technology."

Also, the U.S. Department of Energy (DOE) Office of Science 2004 Strategic Plan states: "The President has made achieving commercial fusion power the highest long-term priority for our Nation. Our challenge is to develop a science-based solution that harnesses fusion energy to power our industry and homes. We will do this by joining an international burning plasma experiment, ITER, and exploring other promising technologies."

²See http://www.foe.er.doe.gov/Sub/Mission/Mission_Strategic.htm.

vice and recommendations to the DOE Office of Science Director) in regard then to the fiscal year 2004 budget. At that time, DOE had proposed to terminate the fusion technology effort in fiscal year 2004 but a Congressional add-on and a strongly-worded letter from FESAC³ helped to provide a reprieve. The fiscal year 2005 budget request includes the same fusion technology funding cuts which, as part of the fiscal year 2004 budget, were criticized by FESAC in 2003.

Fusion technology research addresses the fundamental scientific issues that will be encountered in fusion systems with substantial amount of fusion energy (including such fusion facilities as ITER and NIF). It provides solutions to near term technology issues that will certainly arise in building and operating facilities like the NIF and ITER. The advanced design and analysis of fusion energy systems provide a vision of the ultimate fusion energy goal and a tool that is useful for guiding the highest leverage near term scientific research.

Other participants in ITER, in particular the E.U. and Japan, have strong programs in fusion technology R&D in preparation for testing in ITER and leading to a power reactor in the future. It would be regretful at this stage for the United States to pull out of this R&D area and to be left in the precarious position of having to catch-up with our international partners in the future once we decide to seriously develop the advanced technology required for attractive fusion power plants (of either MFE or IFE types).

I hope that this subcommittee will share our concern about this apparent disconnect between the administration fusion energy goals and this recent fusion energy funding policy change as well as about the increasing gap in fusion technology expenditure and expertise between the United States and its international partners. We strongly recommend additional funding to the Department of Energy, Office of Science, Fusion Energy Sciences fiscal year 2005 budget, with at least \$5 million specifically allocated to restoring the funding in the Fusion Technologies and Advanced Design categories. We also recommend a strong accompanying statement of support from the subcommittee on these activities.

PREPARED STATEMENT OF THE COALITION OF NORTHEASTERN GOVERNORS

Dear Mr. Chairman, the Coalition of Northeastern Governors (CONEG) is pleased to provide this testimony for the record to the Senate Appropriations Subcommittee on Energy and Water Development as it considers fiscal year 2005 funding for the Office of Energy Efficiency and Renewable Energy (EERE) of the U.S. Department of Energy (DOE). While we recognize the many demands being placed upon Federal resources in the coming year, we urge the subcommittee to provide the increased Federal funding support for renewable energy programs, particularly the national and regional partnerships that advance research, development, demonstration and deployment of renewable energy technologies. The Governors appreciate the subcommittee's previous support for one of these partnerships, the Regional Biomass Energy Program (RBEP), and the decision of the EERE to continue this valuable Federal-State-private partnership for bioenergy. We request the subcommittee to fund the EERE's renewable programs at a level that will enable DOE to continue its support of the RBEP program at \$5 million in fiscal year 2005.

Renewable energy plays an increasingly vital role in a strategy to meet the country's near and longer-term energy needs. It is an important component of the diverse mix of fuels essential for a reliable energy supply. Today, biomass provides a larger percentage of the Nation's total energy mix than do hydroelectric sources; and it is responsible for more energy output than all other renewable technologies combined. Ethanol and electricity generation from biomass feedstocks contribute over 3 percent of the Nation's energy consumption. In the Northeast, bioenergy pro-

³In a March 5, 2003 letter to Dr. Orbach, the FESAC said, "... devastating cuts to certain program elements are alarming; this note expresses our most serious concerns," and commented, "Thus, FESAC is puzzled by the elimination in the fiscal year 2004 budget of funding for fusion technology." The FESAC said, "Similarly, inertial fusion energy (IFE) is an important element of a balanced U.S. fusion program: it provides the principal alternative to magnetic fusion and takes advantage of NNSA investments in the National Ignition Facility. The fiscal year 2004 budget, however, eliminates (fusion) chamber technology for both MFE (magnetic fusion energy) and IFE." With respect to the Advanced Design and Analysis program, the FESAC said, "The study of future energy systems is a central component of fusion research. Its evolving conceptualization of an eventual fusion power plant has helped us visualize our target, while allowing us to identify key scientific challenges." "In summary," the 2003 FESAC letter said, "FESAC finds the Presidential request for fusion research funding in fiscal year 2004 to be not only meager but also harmfully distorted. It terminates components of the program that are truly essential." (see http://www.ofes.fusion.doe.gov/More_HTML/FESAC_Charges_Reports.html).

duced from the region's forest and agricultural resources contributes to approximately 5 percent of the region's energy consumption. Some of the most promising technologies which can meet renewable energy needs in the near-term and lessen the Nation's dependence on fossil fuels use biomass.

While the CONEG Governors recognize Federal support for bioenergy can take many forms, we specifically support a level of funding for the EERE's renewable energy programs that will enable the DOE to continue its support of the Regional Biomass Energy Program and its effective network of regional host organizations at a level of \$5 million in fiscal year 2005. This RBEP network is an important partner in the Federal Government's multi-faceted initiatives to encourage a diverse energy resource mix and energy efficiency across the country. Funding for the RBEP program will allow this valuable Federal-State-private sector initiative to continue—without interruption—the pioneering regional projects and technical assistance networks which help bring bioenergy into regional energy markets across the Nation.

The revitalized RBEP encompasses all 50 States in five regional programs. It is an important tool in the Nation's effort to realize the opportunities which bioenergy offers for energy production, economic development and sound environmental management. The regional program is uniquely situated to target program resources to the specific biomass opportunities of each part of the country. Through a blend of projects and technical assistance networks, the RBEP identifies opportunities for and helps reduce barriers to the commercialization of biomass technologies; promotes coordinated State and Federal public policies in support of bioenergy; and educates consumers on the opportunities and benefits of biomass energy.

The RBEP's success is closely tied to its use of State-based regional organizations to administer and coordinate program resources and activities. These organizations, with their direct ties to elected and appointed State decision-makers and agencies, are uniquely able to leverage Federal, State and private sector resources and cooperation across State and Federal agencies, among various States, and between the public and private sector. These organizations have:

- the ability to gain governors' and State legislators' attention and commitment to bioenergy;
- the capacity to leverage resources and cooperation for collaborative policy and technical projects from private companies and multiple State and Federal agencies—transportation, environmental protection, public utility commission, and agriculture;
- the capability to move quickly to address emerging issues; and
- the ability to offer staff with extensive biomass program management experience.

The CONEG Policy Research Center is pleased to be part of the Northeast Regional Biomass Program (NRBP) and its work to advance renewable biomass energy, the region's most abundant resource. From Maine to Maryland, the NRBP encompasses a wide range of activities that cover all biomass resources and technologies. The NRBP makes possible State-level working groups that promote public-private partnerships for biomass development, and it helps promote policies that support renewable biomass. It encourages demonstrations of leading edge technologies, and conducts public education and outreach that helps condition the marketplace for new bioenergy technologies and biobased products. A major strength of the NRBP is its ability to link biomass development to other public policy goals, such as creating new economic opportunities, preserving agricultural or forest lands for current use, and reducing air and water pollution. As Renewable Portfolio Standard programs have and continue to be promulgated in the Northeast States, biomass power has recently begun to be a focus of new and significant project development. The contributions of the NRBP program over the years has played, and will continue to play, an essential role in stimulating and facilitating this market development through its working groups, extensive networking, and leadership of its regional coordinator.

Congressional funding for EERE's renewable energy programs at a level in fiscal year 2005 that will permit \$5 million for the RBEP will allow these partnerships, with their administration by proven host agency organizations, to strengthen the established bioenergy networks that transfer experience and coordinate activities within a State, throughout a region and across the Nation.

We thank the subcommittee for this opportunity to share the views of the Coalition of Northeastern Governors, and we stand ready to provide you with any additional information on the importance of the Regional Biomass Energy Program and the Northeast Regional Biomass Program to the Northeast and the rest of the Nation, as well as the vital role biomass can play in meeting the Nation's energy needs.

PREPARED STATEMENT OF BOB LAWRENCE & ASSOCIATES, INC.

COST/BENEFITS OF GEOTHERMAL ENERGY R&D

Mr. Chairman and members of the subcommittee, my name is Dr. L.R. (Bob) Lawrence, Jr., and I am President of Bob Lawrence & Associates, Inc., a consulting firm in Alexandria, Virginia. I, and my firm, have been working with the Department of Energy's Geothermal program since 1990, and during the past 14 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 \$30 million for the program for fiscal year 2005, the same level that was appropriated for fiscal year 2003, of which, \$6 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 \$30 million annually to accelerate increased geothermal use for energy purposes. The fiscal year 2004 appropriation of \$25.5 million was, unfortunately, a step backward, causing cuts in numerous, high quality, ongoing programs.

At \$30 million, it gives the Geothermal program the chance to move forward with industry on several fronts. At the \$30 million level, strong programs, heavily cost shared with industry, can move ahead addressing Enhanced Geothermal Systems, where tertiary treated waste water is injected deep into the earth to provide additional needed water to under-saturated 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 \$30 million, the Geothermal program will be the lowest funded of all Renewables, even though the program returns the most revenue to the government and 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;
- uses over \$500 million worth of steel structures;
- 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 to \$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 to 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 fourth 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 con-

ditioning, 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 and should be expanded to \$6 million for fiscal year 2005.

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 projects 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. \$30 million is required for fiscal year 2004.

PREPARED STATEMENT OF BOB LAWRENCE & ASSOCIATES, INC.

REQUIRED REPLACEMENT OF THE TOPOCK-DAVIS-MEAD TRANSMISSION LINE

Mr. Chairman and members of the subcommittee, my name is Bob Lawrence, and I am President of Bob Lawrence & Associates, Inc., a consulting firm in Alexandria, VA. Our company is involved in a variety of high technology subjects largely related to the Energy sector.

I am here, today, to request an appropriation of \$20 million for fiscal year 2005 for replacement of the Topock-Davis-Mead transmission line with Aluminum Matrix Composite Conductor (AMC). The Topock-Davis-Mead line runs along the Colorado River on the Western boundary of Arizona and serves the electricity needs of the communities there including Havasu City (pop. 50,000), Bullhead City (33,769), Mohave Valley (13,694), Needles, CA (5193) and the Mohave Indian Tribe. It is the primary load server for this region. The line also provides needed service to Kingman, AZ (22,092) and Blythe, CA (21,376). The line is operating with all of its capacity allocated. The \$20 million requested would be the first of two increments for a total of \$35 million to replace this line with AMC conductor. Studies accomplished by WAPA and others show that to double the capacity of this transmission corridor would cost \$10 million to \$17 million more with conventional technologies than it would using the AMC conductor option. A simple line for line replacement, using the AMC option, will increase the capacity by well over a factor of 3, and some studies indicate a factor of 8.

WAPA ratepayers presently pay about \$80 million more to the government than WAPA receives in appropriations on an annual basis. If WAPA were a private utility, these funds would be available to upgrade their system. In the WAPA case, the "surplus" goes back to the Federal treasury. Yet, the WAPA budget request to Congress contains only \$12 million for "construction" which is woefully inadequate to maintain their system with needed upgrades. Therefore, it is requested that the funding to pay for the upgrading of this line come from the annual "surplus," and be designated "non-reimbursable."

The service area for this line is one of the hottest regions of the United States. Without air conditioning, individuals of fragile health in the region could be at considerable risk. The region served by Topock-Davis-Mead is populated largely by retirees, causing a greater than normal percentage of elderly in the population. These are the people that could be particularly, negatively affected by a transmission shut-down, causing a loss of electrical service, and air conditioning, during peak summer temperatures. The situation is now approaching critical.

The region is experiencing load growth, as much as 10 percent per year in some areas. The Parker-Davis dam system is operating at full capacity, and all of the generated power is being delivered through the transmission system. There is no capa-

bility for additional transmitted power in the immediate region above what is presently demanded.

WAPA is legislatively responsible for "system reliability," but is not required to provide for load growth beyond the generation of the Parker-Davis dam system.

The Topock-Davis-Mead line, when running at peak capacity, is thermally limited and limited by the sag. If additional power is transmitted, the line would sag beyond the safe limits established by national electrical safety code standards. It was excessive sag in a transmission line that triggered the blackout event of August 14, 2003, in the Northeast and Midwest. It is essential that this be avoided in this WAPA DSR transmission trunk.

The conventional solution to this problem would be to construct a new transmission line in the area, requiring new right-of-way, new towers, and new lines. The transmission path is in an archeologically significant and environmentally sensitive area, which makes new right-of-way an unattractive option.

The Department of Energy has been evolving this potential solution at the request of Congress. Since 1998, DOE has been developing and testing the Aluminum Matrix Composite Conductor (AMC), also called Aluminum Conductor Composite Reinforced (ACCR). This is a high capacity transmission line conductor that could provide very substantial capacity increases by simply replacing the old technology lines with the new, AMC/ACCR option. Field testing of this option, now underway, has met all needed utility specifications. AMC/ACCR is in operational service in Hawaii, North Dakota, Minnesota and Arizona. AMC/ACCR is now available for commercial sale and application.

The use of this new technology on the Topock-Davis-Mead line would offer key benefits including:

- Ensure delivery of power to the citizens of the surrounding communities.
- Improve the reliability of the region by addressing a known problem.
- Elimination of a bottleneck resulting in an 8-fold increase in power transfer capability (in this case the flow would be north to Mead, the most critical 500kV feed into Southern California)
- Preserve the visual landscape since no visual change to the existing line would occur and no additional land is required.
- Avoid the environmental impact associated with building a new line and time delays that can occur during the permitting process.
- Provide additional revenue to the Federal Government in the form of increased power sales or additional wheeling charges for carrying power from other producers.

Finally, this project would provide a "showcase installation" for a new, well tested, technology and would spur further adoption. The experiences of the past 2 years have clearly shown that our Nation needs an affordable option that will improve, upgrade, and increase the capacity of our national grid without adding to the environmental insult of overhead, electric transmission lines. The Aluminum Matrix Composite Conductor appears to be the most near term option available.

The program to develop this option was begun in fiscal year 2002 with \$4 million, and was continued through fiscal year 2003 and fiscal year 2004 at \$4 million per year. Substantial cost sharing from both industry and utilities occurred. The need for the Congressionally mandated \$4 million per year has now ended. Accessories tailored for each conductor installation were also developed and tested. The testing included 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 are now demonstrating medium and large size conductor performance under different conditions, such as various voltages, mechanical loading conditions, and operating conditions. The testing is proceeding flawlessly. WAPA is hosting two of the ongoing field trials which began in fiscal year 2002 under this program.

In conclusion, I would like to thank the chairman and his staff for having the foresight to provide the needed funding to bring the development program and the status of the technology to this point. Clearly, it is the best option to replace outdated, conventional technology lines in critical locations such as the Topock-Davis-Mead corridor.

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 appre-

ciate 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 2005.

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 have moved into government-industry partnerships aimed at accelerating superconducting products into the electrical marketplace with concurrent, dramatic, energy efficiency and environmental improvements. Energy Committee Chairman Pete Domenici summed up the promise and accomplishments of this program, earlier this year, when he noted that, 20 years ago, superconducting material only came in 1 centimeter lengths, whereas today, they are making cables out of it. This is exceptional progress in research.

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 superconducting 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 superconducting 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" superconducting (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 Centrior Energy (a utility company) and Sandia National Laboratory. "In February 1996, Reliance Electric successfully tested a four-pole, 1800 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 generation 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.

EFFECTS OF FISCAL YEAR 2004 CUTS

As is well known, the Department of Energy, for fiscal year 2004, elected to fund the Superconductivity program at \$32 million, even though the final, Conference version of the fiscal year 2004 appropriations bill "urged" a funding level of \$48 million. This decision has been devastating to the program and the industry, and if it isn't corrected, the damage to the program will be such that it will take many years to recover. This type of action must absolutely be avoided in the future.

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 2005.

PREPARED STATEMENT OF THE SOLAR ENERGY INDUSTRIES ASSOCIATION

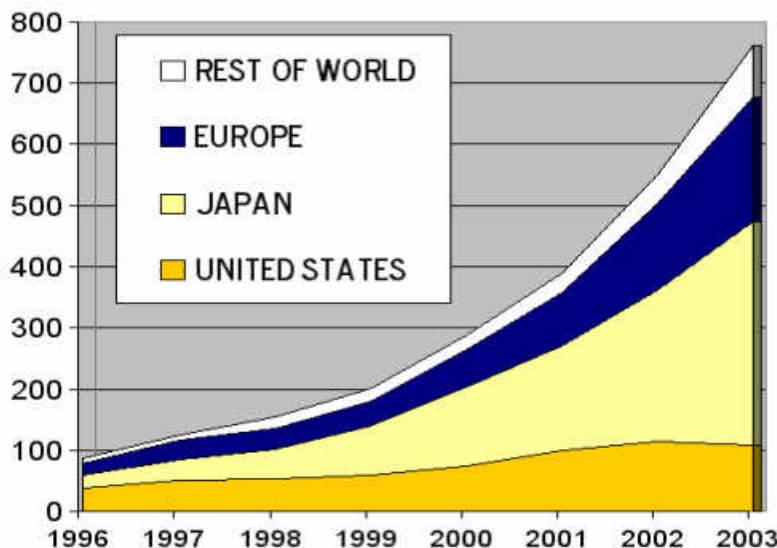
The Solar Energy Industries Association represents photovoltaic, concentrating solar power, and solar thermal manufacturers, distributors, contractors, and installers nationwide. I am writing to request research funding of \$100 million for photovoltaics, \$20 million for Concentrating Solar Power, and \$5 million for Solar Heating and Lighting, as well as potential future Federal procurement programs. This is a substantial increase over current funding levels, but in line with funding proposed in the conference Energy Bill, as supported by SEIA.

PHOTOVOLTAICS

Our industry is at a critical decision point. While clean energy industries soar worldwide, the United States is increasingly left behind. Worldwide solar production in 2003 was more than 760 million watts, up from just over 550 million in 2002. However, the United States produced just 109 megawatts—the first U.S. production decline in recent memory. We must stop this trend, before we become dependent on importing yet another source of energy.

The overall industry is supercharged; world PV production is now doubling almost every 2 years. Bell Labs produced the first watt of commercial PV in 1954, and we expect to produce more than one billion watts in 2004. However, increasingly, that production occurs in Japan and Germany.

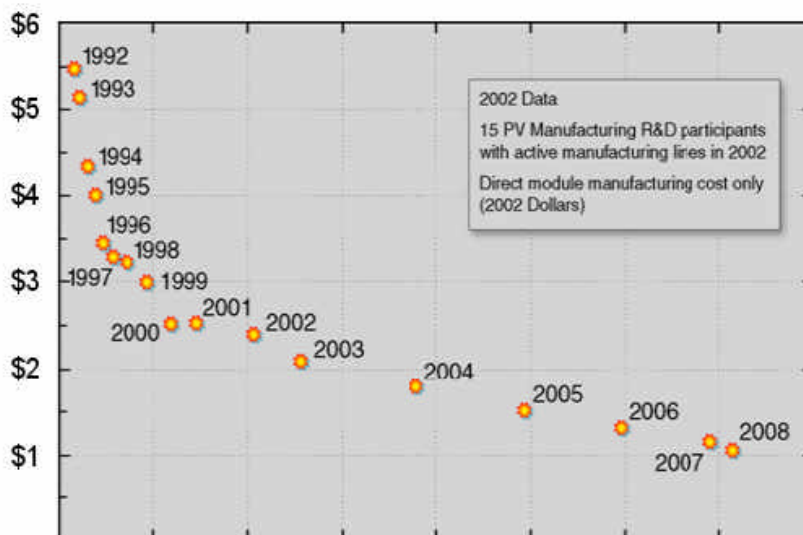
WORLD PHOTOVOLTAIC PRODUCTION (MW)
 PHOTON INTERNATIONAL MAGAZINE ANNUAL PRODUCTION SURVEY



Leaving aside environmental and energy security concerns, this is a major issue. The Renewable Energy Policy Project estimates that each megawatt of solar produced supports 35.5 jobs over 10 years—more than any other energy source. At that rate, a solar industry which continues to grow at current rates would support more than 100,000 jobs by 2020; an industry half the size of General Motors. Many of these are very high value-added manufacturing jobs, with major manufacturing in TN, NJ, MI, IL, MA, OH, MD, WA, DE, CA, and elsewhere. Federal R&D has a real impact on where these plants develop. My members tell me that the opportunity to participate in DOE's world-class research is one of their primary considerations when deciding where to locate manufacturing.

Other nations have noted this industry's potential, and are coupling incentive programs with increasingly aggressive research funding. However, while the photovoltaics industry has more than doubled in size since 2000, U.S. research fund-

ing for photovoltaics has remained essentially flat; this makes even less sense when you consider the program's impressive results. The DOE PV research program has been a major reason why solar manufacturing prices have dropped by more than half in the last 10 years alone. (Below—DOE's PV Roadmap is now predicting that solar electricity will be available for less than \$.08/kWh within the next 10 years.) These innovations occur in a competitive cost-sharing environment that ensures rapid development of technologies that would not likely emerge otherwise. As a result of this excellent work, PV electricity is now cost-competitive in a growing number of markets for homes, businesses, and remote applications alike—the number and size of these markets will only increase as costs continue to fall.



Continuing advances in crystalline silicon technologies could bring prices down by half again, while DOE's Systems-Driven Approach squeezes optimum efficiency and reliability out of every part of the solar system, from panels to connectors to inverters. Meanwhile, the Thin Film Partnership is beginning large-scale commercialization of their products, which use much less raw material and more rapid continuous-line production processes. Equally exciting are the "generation beyond next" nanostructured and organic solar cells being developed by many domestic companies and labs—these flexible cells offer the possibility of manufacturing millions of watts of solar on machines similar to today's printing presses, out of chemicals we currently use to make paint and toothpaste.

The 2003 Peer Review of DOE's Photovoltaics subprogram, assembled by a team of eminent scientists and researchers including a retired Scientific Advisor for Exxon Corporate Research, heaped praise upon the program's achievements, noting "The role of the laboratories in the projects reviewed has been outstanding in terms of quality of science, technology and engineering; relevance to national needs and DOE mission; and programmatic performance, management and planning." However, they felt the need to note that DOE is now in the position of having to choose between research and basic equipment needs:

"Equipment and facilities are aging and failing at the laboratories . . . Funds for personnel and current research are being cannibalized to sustain equipment that should have been replaced long ago . . . An exceptional research capability at both Sandia and NREL is at risk in the immediate future unless DOE develops a strategy for dealing with these ongoing strains . . . the panel heard frequent references to specific equipment and facilities that were:

—Aging and less capable than new equipment.

—Failing from lack of maintainability.

—Being kept in operation at the expense of funds to support staff patent applications, conferences and publications.

"It appears that the operating budgets at NREL and Sandia are being partly cannibalized to keep basic equipment operating." (Emphasis added.)

The current fiscal year 2005 administration request for the photovoltaics program—ca. \$75 million—is insufficient to support the research needs of the evolving technology and growing industry behind these programs. If we are to meet DOE's goal of PV-generated electricity for \$.06/kWh by 2020, funding needs to be increased substantially. SEIA requests \$100 million for the photovoltaics program in total.

CONCENTRATING SOLAR POWER

CSP systems currently produce 354 MW of clean, reliable, and relatively inexpensive power in the California desert—enough for ca. 120,000 homes. New companies are now entering this 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 in early negotiations now, and the Western Governor's Association has stated that they support further developing this resource. Recently, New Mexico Governor Bill Richardson announced he plans to use \$3 million in capital outlay funds to attract concentrating solar power plants to his State.

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:

"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 . . . 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 to 8 cents/kWh range."

Given this degree of support and promise, a closeout budget request (ca. \$2 million) is unjustifiable. The funding rollercoaster for the CSP program has damaged its ability to make long-term investments and retain high quality staff. Laboratory staff has been reduced by 70 percent, a staggering loss of knowledge and expertise. Priceless equipment goes unused or will be soon dismantled.

Funding of \$20 million would allow the Department of Energy to revitalize this program, maintaining an ability to validate technology and components as well as lowering operations and maintenance costs in a stable environment. We expect that CSP plants could generate massive amounts of electricity for prices in the neighborhood of \$.07 to \$.09/kWh by the end of the decade. (For instance, using CSP on less than one-quarter of 1 percent of Arizona's land area could meet the State's entire electrical needs.) 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 recent conference Energy Bill that provides substantial research support for using Concentrating Solar Power as a source of new hydrogen fuel. Solar will undoubtedly be one of the critical cornerstone technologies of the hydrogen economy, giving us the ability to produce zero-emissions motor fuels when and where we want them. Concentrating Solar Power offers two unique opportunities in this regard; conventional electrolysis of water to generate hydrogen, and, unique to solar, inexpensive thermochemical processes that use a direct catalytic conversion.

SOLAR HEATING AND LIGHTING/ZERO ENERGY BUILDINGS

SEIA also strongly supports the Solar Buildings projects, including the visionary Zero Energy Buildings Program. The multi-year goal of ZEB is to allow widespread adoption of zero energy residences by 2010 and 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 and materials, and including solar technologies which will achieve zero finite fuel source energy consumption. For these programs we request \$8 million in funding, and we support the administration's attempts to move this program into its logical niche in the Interior appropriations budget, where partnerships with DOE's Buildings program could make the most of relevant equipment and expertise. 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 electricity and natural gas consumption. Solar water heating tech-

nologies are already ubiquitous in many other countries, thereby saving other energy sources for higher value purposes.

Within this program, emphasis is placed on reducing the cost of solar water heating by using lightweight polymer materials to replace the heavy copper and glass materials in today's 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 by the end of 2004. We recommend that this program be funded explicitly at the \$5 million level.

FUTURE APPROPRIATIONS

While they are not yet law, we would like to draw the subcommittee's attention to two areas of the proposed energy bill as supported by SEIA (both H.R. 6 and the new S. 2095). Sec. 205 would authorize substantial purchases of photovoltaics on the part of the Federal Government, driving down costs nationwide and giving the government a good long-term energy investment. Sec. 902 would cost-share the installation of renewable energy systems in State or local buildings, improving the energy independence and financial situation of State and local governments with new clean energy devices.

CONCLUSION

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 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. Modular and simple to install, it can provide quick answers to grid congestion or supply inadequacy, while sidestepping environmental and NIMBY issues. The high coincidence of solar panels' peak output with daily peak demand makes them an attractive solution for load pockets or seasonal demand spikes, avoiding the dirtiest and least efficient conventional generators.

Increased investment in solar also ties us more closely to a source of energy that can be used anywhere in the Nation, and which becomes less expensive, not more, every single year. These are nontrivial considerations when the Chairman of DuPont recently declared that high natural gas costs will prompt the company to shift its "center of gravity" overseas, and when the Conference Board, the Chicago Fed, and Federal Reserve Chairman Greenspan all publicly cite volatility and escalation in energy costs as a major uncertainty as well as a drag on economic growth.

Expanded use of renewable energy is also a key recommendation of the report on mitigating the natural gas market crisis, as issued in September 2003 by the Secretary of Energy's National Petroleum Council (NPC). The NPC report set as its number one recommendation to "Improve Demand Flexibility and Efficiency" with an emphasis on the use of renewable fuels and technologies for power generation.

Clean energy is the most likely next tech boom, and other nations' research and incentive spending shows that they are very much aware of this fact. As Business Week correctly observed in their March 22 issue, economically viable solar power could drive a transformative "job boom" in the coming century, maintaining American leadership in the world economy as did the automobile and the commercial aircraft earlier this century. I urge the subcommittee to make the most of this historic opportunity.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

The American Society of Plant Biologists (ASPB) is a non-profit society of nearly 6,000 scientists. My name is Mary Lou Guerinot, President of ASPB and Professor at Dartmouth College. ASPB urges the subcommittee to support the fiscal year 2005 budget request of the Department of Energy of \$228,422,000 for the Chemical Sciences, Geosciences and Biosciences Division of the Office of Basic Energy Sciences. This represents an increase of \$8.8 million or 4 percent.

The Biosciences program within the Chemical Sciences, Geosciences and Biosciences Division supports fundamental research needed to develop future biotechnologies related to energy. The supported research focuses on the biological mechanisms occurring in plants and microorganisms.

Plants and microbes fit readily into the energy context by virtue of serving as renewable resources for fuel and other fossil resource substitutes, as vehicles to restore previously disrupted environmental sites, and as potential components of industrial processes to produce new products and chemicals in an environmentally benign manner.

The Biosciences program is devoted to the fundamental science underlying the use of biological systems to produce and conserve energy.

Biosciences research on plants and microbes opens the opportunity to synthesize an almost limitless variety of energy-rich organic compounds and polymers. DOE's biosciences fundamental research could lead to higher quality plant products, more environmentally benign products and a reduction in the increasing demand for imported petroleum.

The DOE Office of Science, Office of Basic Energy Sciences' Division of Chemical Sciences, Geosciences and Biosciences is a competitive grants program in which awards are made based on merit. The Division and its Biosciences program select the best research proposals as determined in a process of peer review. Leading researchers at universities throughout the Nation are funded by the Biosciences program.

The Biosciences program currently supports research in the following areas:

Plant Science

- Structure and function of the plant cell wall (cellulose, lignin, hemicellulose, and protein)
- Biophysical and biochemical mechanisms of photosynthesis
- Plant primary and secondary metabolism
- Genetic and biochemical mechanisms of plant growth and development
- Bioenergetics, ion uptake, and other membrane-related phenomena
- Arabidopsis genome sequencing
- Functional plant genomics

Fermentation Microbiology

- Bioenergetics and metabolic properties of anaerobic microbes
- Degradation of lignin, cellulose, and hemicellulose
- Biochemistry, genetics, and physiology of microbes that metabolize one and two carbon compounds
- Mechanisms of plant symbiotic and pathogenic interactions
- Functional microbial genomics

Extremophilic Organisms

- Biochemistry, genetics and physiology of hyperthermophilic microbes
- Mechanisms of life under extreme conditions, temperature, salt, pH, etc.
- Metabolism of inorganic compounds

Biomaterials and Biocatalysis

- Biosynthesis of novel materials
- Catalytic antibodies
- Structural and kinetic characterization of energy-related enzymes
- Bioadhesion

The Biosciences program has sponsored many leading research efforts. For example, Biosciences program grant support led to a breakthrough in cellulose biosynthesis research. Plant cell walls are the major energy component of renewable biological resources. Cellulose is the major constituent of the plant cell wall and represents the most abundant biopolymer on earth.

Dr. R. Malcolm Brown, Jr. and colleagues at the University of Texas at Austin gave the first experimental confirmation of an important structure involved in cellulose biosynthesis. This work featured a combination of molecular biology and immunocytochemistry techniques. This research provides an exciting springboard for future applications in the efficient design of specific complex carbohydrates and other renewable carbon resources.

As another example, research sponsored earlier by the Biosciences program led to new findings on the capture of energy from photosynthesis. This research led to the presentation to Biosciences-program-grantee Dr. Paul Boyer of the shared award of the 1997 Nobel Prize in Chemistry (biochemistry). Photosynthesis is nature's way of utilizing sunlight to produce chemical energy and to bring carbon dioxide into biological organisms. Increased knowledge in this area could lead to a better understanding of how to manage carbon dioxide in the atmosphere. Further research in this area could also contribute to development of alternative energy sources.

At the latter part of the 19th Century, people throughout the world were dependent upon plants and other contemporaneous biological sources for the production of organic materials. Plants and animals provided the only sources of fibers, coatings, lubricants, solvents, dyes, waxes, fillers, insulation, fragrances, detergents, sizing, wood, paper, rubber and many other types of materials. In 1930, fully 30 percent of industrial organic chemicals were still derived from plants.

The discovery of extensive petroleum reserves and advances in chemistry and petroleum engineering resulted in a major shift to reliance on fossil sources of organic feedstocks such as petroleum. These developments also led to the development of petroleum-based materials, such as inexpensive plastics, with properties that could not be duplicated at the time by abundantly available natural materials.

Advances in modern plant research made possible by support from the Biosciences program can result in a shift toward use of feedstocks from domestically grown plants for chemical products. Plant-produced products can provide the chemical industry with much greater diversity than is available from the comparatively limited structures found in crude oil.

Knowledge gained from Biosciences-supported research is leading to enhanced plants that will provide the feedstocks for new types of polyurethane, new biodegradable lubricants and superior quality nylon having stronger and more flexible fibers. The United States produces nylon, polyurethane and other plastics to supply multi-billion dollar markets. Genetically modified crop production of nylon alone could create over \$2 billion in new income for America's growers.

Plants are a major source of renewable and alternative fuels in the United States. Greater knowledge of the basic biology of plants will lead to further economies in domestic production of renewable fuels.

The science community deeply appreciates the continued strong support of the subcommittee for innovative research on plants and microbes sponsored by the Chemical Sciences, Geosciences and Biosciences Division.

PREPARED STATEMENT OF SOUTHEASTERN FEDERAL POWER CUSTOMERS, INC.

Mr. Chairman and members of the subcommittee, on behalf of the Southeastern Federal Power Customers ("SeFPC" or "Customers"), I am pleased to provide testimony in reference to the administration's fiscal year 2005 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 Purchased 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 Illinois, 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 ZERO OUT PURCHASED POWER AND WHEELING

The administration has proposed 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 100 percent in the upcoming fiscal year, from the current level of \$34.5 million to the proposed level of \$0. 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.

PROPOSAL WOULD YIELD NO COST SAVINGS FOR FEDERAL GOVERNMENT

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. Moreover, if PP&W funds are eliminated, SEPA's annual return to the U.S. Treasury of roughly \$155 million would likely be reduced significantly.

Thank you in advance for considering our comments on the President's proposed fiscal year 2005 budget for SEPA.

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 2005 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 1.8 cents when adjusted for inflation) from electricity generated from solar, wind, geothermal and biomass projects. According to DOE sources, in order to fully fund all past and current REPI applicants, \$60 million would be needed for fiscal year 2005. Despite the demonstrated need, however, DOE has again asked for only \$4 million for fiscal year 2005, citing budgetary constraints.

Approximately 25 percent of electric utility customers are served by not-for-profit public power systems and rural electric cooperatives. Fully funding REPI is an issue of comparability for the communities served by these systems. 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 over a decade 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 of existing landfills into landfill-gas-to-energy projects. In order to ensure that these efforts and other renewable energy goals are achieved 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.

FEDERAL POWER MARKETING ADMINISTRATIONS (PMA'S)

Purchase Power and Wheeling

We urge the subcommittee to authorize appropriate levels for use of receipts so that the Western Area Power Administration (WAPA), the Southeastern Power Administration (SEPA) and the Southwestern Power Administration (SWPA) can con-

continue to purchase and wheel electric power to their municipal and rural electric cooperative customers.

The fiscal year 2005 DOE budget proposes to eliminate the ability of WAPA, SEPA, and SWPA to use receipts—which do not score in the Federal budget process—to provide these services to their customers. Although appropriations are no longer needed to initiate the purchase power and wheeling (PP&W) process, the subcommittee continues to 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 PMA's often make purchases in the spot market to “firm” the resource when generation is less than the amount contracted for delivery. Additionally, in low-water years, the PMA's often purchase additional power to fulfill their contracts with customers. The PMA's then must negotiate to transmit this power to their customer—often over non-Federal transmission lines (wheeling is the charge that the PMA's pay to move electricity over a non-Federal transmission line). For individual PMA customers—many of whom are the distribution utility of very small towns—to be forced to perform these purchase power and wheeling functions would be extremely inefficient, and would almost certainly result in rate increases for the retail customers of these small utilities.

The PP&W arrangement is effective, has no impact on the Federal budget, and is supported by the PMA customers who pay the costs. Therefore, we request that the subcommittee authorize the use of receipts in fiscal year 2005 as follows:

- Western Area Power Administration (WAPA)*.—\$227.6 million authorization needed in the fiscal year 2005 bill.
- Southeastern Power Administration (SEPA)*.—\$32.7 million authorization needed in the fiscal year 2005 bill.
- Southwestern Power Administration (SWPA)*.—\$2.9 million authorization needed in the fiscal year 2005 bill.

Security Costs

We urge the subcommittee to reaffirm the Federal Government's responsibility to pay the costs of increased security measures at Federal, multi-purpose facilities and delivery systems and include language to ensure that such costs are non-reimbursable.

Following the September 11, 2001 attacks, the U.S. Bureau of Reclamation moved aggressively to strengthen security measures at Federal dams throughout the West, including such facilities as Hoover, Grand Coulee and Glen Canyon dams. These multipurpose facilities provide important flood control, water storage for irrigation, municipal and industrial uses, power generation, recreation and environmental mitigation benefits, and are a linchpin of the regional economy.

To date, funds appropriated in fiscal year 2003 and fiscal year 2004 for anti-terrorism/site security measures at Bureau of Reclamation facilities have been treated as non-reimbursable pursuant to an administrative determination. This decision found that counter-terrorism protections are not considered normal operation and maintenance activities and that the national security interests justifies making the expenditures a Federal responsibility.

This determination is also consistent with how similar costs were treated in the aftermath of the attacks on Pearl Harbor in World War II. To ensure that the costs of increased security at Federal facilities continue to be treated as a non-reimbursable Federal expenditure, we request that you include the following language in the fiscal year 2005 Energy and Water Appropriations bill:

“For fiscal year 2005 and each fiscal year thereafter, the increased costs of ensuring security of Bureau of Reclamation and Corps of Engineers dams and the Federal power marketing administrations in the aftermath of the events of September 11, 2001, shall be non-reimbursable and provided through appropriated funds.”

Animas-La Plata

The Colorado Ute Settlement Act Amendments of 2000 (Title III, Section 301(b)(10), Public Law 106-554, December 21, 2000) authorized development of the Animas-La Plata Project to satisfy water right claims of the Southern Ute and Ute Mountain Tribes in southwest Colorado (known collectively as the “Colorado Ute Indian Tribes.”) The project requires construction of a reservoir, pumping plant and appurtenant facilities to provide water supply and delivery of municipal and industrial water and other benefits to the Tribes.

In order to provide power from the Colorado River Storage Project (CRSP) to the Durango Pumping Plant, transmission facilities will need to be constructed, oper-

ated and maintained by the Western Area Power Administration. Because these transmission facilities are associated with the satisfaction of the Tribes' water rights claims, all amounts expended for their construction, operation and maintenance should be considered non-reimbursable and non-returnable. If Congress does not clarify that these costs are non-reimbursable and non-returnable, CRSP power customers run the risk that the costs of the transmission facilities and services will be shifted to them, despite the fact that they receive no benefit from them.

WAPA will be responsible for the construction, operation and maintenance of these transmission facilities, and requires additional appropriations in the amount of \$10,000,000 in fiscal year 2005 to meet the construction timetable established by the Bureau of Reclamation, the project manager. WAPA, the Bureau of Reclamation, the Colorado River Energy Distributors Association, the water users, the Colorado Ute Indian Tribes and APPA all support the inclusion of the following language in the fiscal year 2005 Energy and Water Development Appropriations bill:

"For carrying out the functions authorized by title III, section 302(a)(1)(E) of the Act of August 4, 1977 (42 U.S.C. 7152), and other related activities including conservation and renewable resources programs as authorized, including official reception and representation expenses in an amount not to exceed \$1,500, \$183,100,000 to remain available until expended, of which \$170,756,000 shall be derived from the Department of the Interior Reclamation Fund: Provided, That all authorities and future contributions described in Section 402, subparagraph (b)(3)(B) of the Reclamation Projects Authorization and Adjustment Act of 1992 previously assigned to the Secretary of Energy, Western Area Power Administration, shall be transferred to the Secretary of the Interior, Bureau of Reclamation: Provided further, That of the amount herein appropriated, \$10,000,000 shall be available until expended on a nonreimbursable basis to the Western Area Power Administration to design, construct, operate and maintain transmission facilities and services for the Animas-La Plata Project as authorized by sections 301(b)(10) of Public Law 106-554."

STORAGE FOR HIGH-LEVEL NUCLEAR WASTE

Since 1982, the Nation's electricity customers have contributed \$22 billion to the Nuclear Waste Fund 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.

The President requested \$880 million for fiscal year 2005 for the nuclear waste repository at Yucca Mountain. While we support the President's budget request of \$880 million, if legislation is not enacted to take \$749 million of the requested funds "off-budget" as the administration assumes, we hope that resources are available to the subcommittee to adequately fund Yucca, but not at the expense of other valuable programs, such as the Renewable Energy Production Incentive and other programs mentioned in this statement.

ADVANCED HYDROPOWER TURBINE PROGRAM

APPA supports the administration's budget request of \$6 million for the Advanced Hydropower Turbine Program for fiscal year 2005. 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 emission-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 emission-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 \$210 million for fiscal year 2005 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 2005 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 \$3 million for fiscal year 2005 to spur innovation of technologies that will reduce, avoid, or capture greenhouse gas emissions.

PREPARED STATEMENT OF THE BIOMASS ENERGY RESEARCH ASSOCIATION

This testimony pertains to the fiscal year 2005 appropriation for biomass research, development, and deployment (RD&D) conducted by the Department of Energy's (DOE) 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, and on forest biomass production research performed by the U.S. Department of Agriculture Forest Service (USDAFS).

BERA recommends appropriations of \$92,500,000 for biomass RD&D in fiscal year 2005 under EERE's Biomass and Biorefinery Systems program and Hydrogen Technology program as follows:

- \$2,000,000 for Feedstock Infrastructure R&D.
- \$26,000,000 for Platforms R&D: Thermochemical Conversion (\$13,000,000) and Bioconversion (\$13,000,000).
- \$19,000,000 for Utilization of Platform Outputs, Integration of Biorefinery Technologies at PDU and pilot scales: Thermochemical Conversion (\$9,000,000) and Bioconversion (\$10,000,000).
- \$39,000,000 for State-Industry Partnerships: Biorefinery Systems Development (\$34,000,000 demonstration facilities) and State & Regional Partnerships (SRP, formerly the Regional Biomass Energy Program, RBEP) (\$5,000,000).
- \$6,500,000 for biomass-related projects 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.

The level of earmarks in the last few years has resulted in premature reductions of scheduled programs by EERE. BERA respectfully asks the subcommittee to carefully consider the impacts of all earmarks on EERE's RD&D. If they are for projects that are not included in DOE's formal funding request, BERA urges that they be add-ons to the baseline funds rather than deductions. In fiscal year 2004, about 35 percent of the appropriation for EERE's RD&D is provided as earmarked funds. EERE's planned objectives are therefore extremely difficult or impossible to achieve because the appropriation provided for fiscal year 2004 is only about 7.5 percent more than the baseline funding requested.

The original goal of the Biomass and Bioproducts Initiative (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 was 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 and energy security and 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. For example, biomass energy consumption in 2002 was about 1.66 million barrels of oil equivalent (BOE) per day. BERA strongly urges that the BBI be continued in fiscal year 2005 at the funding level recommended by BERA for the cost-shared demonstration projects shown in the table on page 3. The highest priority should be given to 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 2004. BERA congratulates DOE on the progress made in restructuring the program and its management. BERA also congratulates DOE and USDA for the cooperation and joint coordination of 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 United States into major sources of renewable energy, fuels, and chemicals.

However, without full incorporation of the BBI into DOE's and USDA's biomass research programs, 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 convince the private sector to get involved in developing even modest size projects in the field. So to help implement this essential 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 and each agency's programs and expenditures, as is done by the DOE and USDA today. This is an on-going activity that should be expanded to include other agencies and departments to help fine-tune the critical pathways to program goals. Continuous 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 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 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 coordinate 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.

Although progress has been made, EERE has terminated research in several critical thermochemical and microbial 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 3, 4 and 5. Other mission-oriented biomass RD&D programs are funded through EERE's Industrial Technologies Program by 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 FOR FISCAL YEAR 2005

BERA recommends that the appropriations for biomass RD&D in fiscal year 2005 be allocated as shown in the accompanying table. For fiscal year 2005, EERE has again incorporated revisions in nomenclature and has zeroed-out, consolidated, or moved some programs within EERE. So our recommendations are generally listed in the same order as the funding requests under EERE's headings and program area titles except several program areas are included that are either new or that BERA recommends be restored to maintain a balanced program. Note that the recommended budgets for the demonstration projects do 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 for these 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	Scale-Up
Biomass/Biorefinery Systems:			
Feedstock Infrastructure	Harvesting Equipment/Storage/Logistics	\$2,000,000	.....
Platforms R&D	Thermochemical Conversion:		
	Advanced Combustion & Controls	2,000,000	.....
	Oxygenates from Syngas	4,000,000	.....
	Liquid Fuels from Pyrolysis	4,000,000	.....
	Chemicals from Syngas & Pyrolysis	3,000,000	.....
	Bioconversion:		
	Pretreatment and Hydrolysis	4,000,000	.....
	Organisms and Enzymes	4,000,000	.....
	Fermentation (Ethanol)	4,000,000	.....
	Fermentation (Methane)	1,000,000	.....
Utilization of Platform Outputs	Integration of Biorefinery Technologies:		
	Thermochemical Conversion:		
	Small Modular Power Generation ² .....	.....	\$2,000,000
	Biomass Cofiring Power Generation ² .....	.....	2,000,000
	Oxygenates and Mixed Alcohols ² .....	.....	5,000,000
	Bioconversion:		
	Ethanol from Cellulosics ² .....	.....	5,000,000
	Value-Added Products ² .....	.....	5,000,000
State-Industry Partnerships	Biorefinery Systems Development: ³		
	Design Optimization, Efficiencies	³ 1,000,000	.....
	Product Slates, Economics, Markets	³ 1,000,000	.....
	Siting, Acquisition, Construction	³ 2,000,000	³ 20,000,000
	Operations	³ 10,000,000	.....
	State & Regional Partnerships	0	5,000,000
Subtotal .....	.....	32,000,000	54,000,000
Hydrogen Technology ¹	Thermal Processes (Reforming)	500,000	1,000,000
	Photolytic Processes (Algae)	1,000,000	.....
	Innovative Conversion Processes	4,000,000	0
Subtotal .....	.....	5,500,000	1,000,000
Totals .....	.....	37,500,000	55,000,000
Grand Total .....	.....	.....	92,500,000

¹ BERA's recommendations pertain only to the biomass-based portion of Hydrogen Technology.

² BERA's recommendations should be used for scale-up at the PDU and pilot-plant scales, preferably with industry cost-sharing.

³ All demonstration projects should be cost-shared with industry and state participation.

Feedstock Infrastructure, Harvesting Equipment, Storage, and Logistics.—DOE terminated biomass production research a few years ago and is concentrating on infrastructure development, including novel systems for collecting agricultural residues, the analysis of sustainable feedstock systems, and regional and national cost-supply relationships. In fiscal year 2005, EERE plans to continue work on the harvesting and logistics roadmap, the sustainability roadmap, and policy considerations, and is expected to include work on one-pass harvesting systems for wheat straw and corn stover, innovative densification and storage systems, and regional modeling that integrates economic and environmental considerations. BERA recommends that EERE continues to develop the feedstock infrastructure, while the USDA Forest Service initiates and continues RD&D on woody biomass for energy.

Platforms R&D, Thermochemical Conversion.—Continuation of thermochemical conversion R&D to develop advanced biomass combustion and gasification methods could have environmental and economic benefits that can lead to significant growth in power generation from waste biomass and combined energy recovery-disposal methods for certain kinds of high-moisture waste biomass such as biosolids (municipal sewage), and for MSW, agricultural residues, and wood wastes. Most of this research has been phased out by EERE. Completion of the development of medium-Btu biomass gasification technologies is also an essential component for the production of fuel gases including synthesis gas (syngas) and hydrogen, power, and chemicals. BERA recommends restoration of this R&D with the goal of developing the next generation of advanced combustion and gasification processes for power generation.

Several thermochemical conversion methods are available for liquefaction of waste and virgin biomass feedstocks to afford storable liquid fuels and chemicals. Included among them are the catalytic conversion of syngas from biomass to liquid products such as ethanol, mixed alcohols, and other oxygenates; the catalytic hydrogenation of biomass and biomass derivatives such as natural oils and waste triglycerides for the direct production high-cetane diesel fuels; and biomass liquefaction under supercritical conditions of pressure and/or temperature in aqueous media. These technologies offer a wide range of options for liquefaction of all categories of waste and virgin biomass. Note also that syngas production from biomass is established technology, and that several processes are commercially available. For several years, BERA has recommended that EERE support thermochemical liquefaction processes. This should have been a key component of EERE's research, but has been a minimally funded R&D effort, particularly when compared with the effort expended on other conversion technologies. It is noteworthy that EERE has significantly increased this activity for fiscal year 2005.

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 continuously increasing prices of natural gas and crude oils, a few small-scale commercial biomass pyrolysis systems have recently been installed and operated under innovative conditions that increase product flexibility to yield cost-competitive products. BERA recommends that R&D on both waste and virgin biomass pyrolysis be added to EERE's program to help perfect advanced processes. It is encouraging to note that pyrolytic oils have been added to EERE's project roster for fiscal year 2005. All of the basic data compiled at DOE on biomass pyrolysis in the 1970's and 1980's should be reexamined in this work.

BERA urges that thermochemical conversion R&D for both biomass liquefaction and gasification processes be restored, expanded, and continued and be given a higher priority by EERE.

Platforms R&D, Bioconversion.—The goal of achieving efficient hydrolysis of low-cost cellulosic feedstocks to obtain the sugars and of simultaneous conversion of the resulting pentoses and hexoses to fermentation ethanol requires the use of special processes for producing genetically engineered organisms and cellulase systems at acceptable costs and performance on a commercial scale. Research by industry and academe should continue to perfect these technologies for incorporation into the overall conversion systems used for these processes. This will ensure that the best possible skills and technologies are brought to bear.

Methane fermentation (anaerobic digestion) is unique in that it produces methane, the major component in natural gas, at high concentrations in the medium-Btu product gas from a full range of virgin and waste biomass. DOE has terminated most of this research, which can lead to advanced waste disposal-energy recovery processes as well as the alleviation of numerous environmental problems encountered during waste treatment in urban communities and agricultural facilities. This research should be restored.

Bioconversion is useful for converting a variety of biomass and derivatives to a wide range of commodity or high-value 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 Bioconversion R&D. BERA recommends that part of this research effort should focus on this field.

Utilization of Platform Outputs, Integration of Biorefinery Technologies, Thermochemical Conversion and Bioconversion.—BERA recommends that this effort utilize the best available information produced by the Platforms R&D programs for testing, confirming, and perfecting the conversion technologies at the PDU and pilot-plant scales shown in the table on page 3. This will generate the information needed to support the design, construction, and operation of demonstration facilities under State-Industry Partnerships, Biorefinery Systems Development (see following section).

Commentary on the value of intermediate scale process R&D is in order. For example, several projects performed at semi-commercial plant scales or that involved modules of commercial plants have been funded to develop processes for converting low-cost cellulosic feedstocks to fermentation ethanol. Unfortunately, the results of this effort have not led to operating systems despite the excessive time and relatively large budgets that have been provided to conduct the work. It is apparent that although the science is feasible, the scale-up projects have not yet been successful. But it is still important to commercialize this technology to help reduce the cost of fermentation ethanol. Intermediate-scale projects such as those conducted at the PDU and pilot-plant scales can more readily focus on efficient development of the critical information and operating data needed to overcome or eliminate existing scale-up barriers. It is also essential that integrated feedstock acquisition-biorefinery systems be designed and built using this information for demonstration in the field on a sustainable basis. The pathways to successful development of these systems are in hand now. They should be implemented.

State-Industry Partnerships, Biorefinery Systems Development.—Overall, this program component should focus on the ultimate objective of sustainable operation of biorefineries integrated with biomass acquisition systems in relatively large field demonstration facilities (energy plantations). This effort should address siting, plant design, financing, permitting, construction, environmental controls, waste processing and disposal, and sustained operations; feedstock selection, transport, storage, and delivery; all waste disposal and emissions issues; and storage and delivery of the salable products to market. BERA recommends that industrial partners and States be carefully selected for participation in this cost-shared program. This work should be given the highest priority. BERA recommends that 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. Since only a minimal effort has been conducted to date in the United States on this type of program, BERA recommends that the first demonstration facility target the acquisition of waste and/or virgin biomass feedstocks for conversion into electricity, liquid and gaseous fuels, and chemicals. Existing moderate- and large-scale facilities from terminated and continuing EERE projects, such as biomass cofiring, gasification, liquefaction, and fermentation, should be carefully examined to determine whether one or more are suitable for these projects. The partnerships should be in place at the start of each demonstration project.

State and Regional Partnerships (Formerly Regional Biomass Energy Program).—The Regional Biomass Energy Program (RBEP) was a model outreach program for more than 20 years. No other DOE program had the information transfer role, capabilities, level of experience, or widespread networks of the RBEP, nor has there been a partnership program so closely affiliated with the highest levels of State and regional government energy organizations. DOE has replaced the RBEP with a new program, State and Regional Partnerships (SRP), that will involve collaboration with States on technology transfer, research, development, field testing, and other needed efforts to overcome market barriers. BERA feels that RBEP can provide a strong foundation for the SRP, and that adequate funding should be provided to sustain the new SRP because of the history and successful track record of the RBEP.

Hydrogen Technology.—Research on the thermal reforming of biomass and on splitting water with algae, 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 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 pre-eminent institutions for scientific research and public education. Since its founding in 1869, the Museum has pursued its mission to "discover, interpret, and disseminate—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.

More than 200 Museum scientists, 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 undergraduate, graduate, and postdoctoral training programs in conjunction with a host of distinguished universities.

The AMNH collections are a major 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. 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.

The Museum interprets the work of its scientists, highlights its collections, addresses current scientific and cultural issues, and promotes public understanding of science through its renowned permanent and temporary exhibits as well as its comprehensive education programs. These programs attract more than 400,000 students and teachers and more than 5,000 teachers for professional development opportunities. The Museum also takes its resources beyond its walls through the National Center for Science Literacy, Education, and Technology, launched in 1997 in partnership with NASA.

SUPPORT FOR DEPARTMENT OF ENERGY SCIENCE MISSION AND GOALS

As one of the world's leading science organizations, DOE's primary strategic goals include maintaining a world class scientific research capability and protecting the Nation's security. Its science program supports fundamental research in energy, matter, and the basic forces of nature and the advanced computational tools critical to research. The American Museum shares DOE's fundamental commitments to cutting-edge research and technology in support of science and education.

Genomic Science

DOE's scientific leadership encompasses genomics research and advanced sequencing technologies. With the historic completion of the first draft of the human genome, work on the frontiers of genome science continues as a critical element of the DOE mission, not only by helping to protect against bio-terrorism but also by contributing to the broad goal of developing "a fundamental, comprehensive, and systematic understanding of life." DOE focus areas include 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. The Genomes to Life program is based on the understanding that genomes, especially those of the simplest organisms, provide a window into the basic mechanics of life. The program addresses energy, environmental, and national security needs and also promises advances in medical treatment.

The American Museum is home to a preeminent molecular research program and is deeply engaged in genome research closely tied to DOE's mission areas and research priorities. 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.

Frozen Tissue Collection

The Museum offers unique research resources in support of its molecular program. It has expanded 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 research resource 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. Since it was launched 3 years ago, 22,000 specimens not available at any other institute or facility have already been accessioned.

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 700-processor computing facility that is the fastest parallel computing cluster in an evolutionary biology laboratory and one of the fastest installed in a non-defense environment. 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 and other disciplines.

Institute of Comparative Genomics

Building on its strengths in comparative genomics, and in concert with the scientific goals of DOE, in 2001 the Museum established an Institute for Comparative Genomics so as to contribute its unique resources and expertise to the Nation's genomic research enterprise. 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. These include obtaining a patent for an 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; building a comprehensive database of all known finished and incomplete genomes of microbial species; developing effective methods of culturing difficult to culture species as well as new methods for obtaining embryos for antibody staining; conducting whole genome analysis of disease causing microorganisms to understand the evolutionary changes that take place in a genome to make it more or less virulent; and developing phylogenetic techniques to advance understanding of bacterial genomics and the evolution of pathogenicity. Institute scientists have also won major grants to lead international research teams in assembling the "tree of life."

The Institute's research programs are complemented by an ambitious agenda of genomics-related exhibitions, conferences, and public education programming, including the landmark exhibition, *The Genomic Revolution* in 2001. Education and afterschool programs introduce students to genome science, and the Museum has held 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*. The March 2004 symposium presents *Expanding the Ark: The Emerging Science and Practice of Invertebrate Conservation*.

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 constructing large genomic databases, and 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. Development of Institute activities entails 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 exhibits.

As the foregoing makes clear, the research interests and expertise of DOE and the Museum are closely aligned in key areas pertinent to the agency's biological and environmental research, including comparative and microbial genomics, bioinformatics, and computational science. We are mutually committed to the importance to humans of nonhuman organisms' DNA sequences, to developing the computational tools to integrate and understand data, and to modeling complex biological systems. We seek a partnership with DOE to further these mutual goals, advancing projects such as the following:

—*New strategies for studying complex microbial communities.*—Investigations into the molecular characterization and phylogenetic analysis of genes involved in biofilm formation to offer new insights into the formation, properties, and evolution of microbial communities.

—*New approaches to bioinformatics and algorithm development.*—Using statistical physics analogues to model NP-hard problems in evolutionary tree construction in order ultimately to aid in the design of novel approaches to long-standing biological problems and generate new insights into the processes of interest to DOE.

—*New strategies for characterizing microbial communities in nature.*—Analysis of samples of uncultured microbial communities, stored in the Museum's frozen tissue collection at temperatures that preserve nucleic acids and proteins, to complement field analysis, and to provide access for the scientific community to this information through the collection's database and informatics tools.

The Museum requests \$3 million to partner with DOE and to employ the unique capacities of the Institute of Comparative Genomics for advancing shared research and education priorities in genomics science. The Institute's comparative and microbial research programs support 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. The Museum intends to support the Institute with funds from non-Federal as well as Federal sources and proposes to use the requested \$3 million towards overall costs for the Institute's microbial genomics research program, including equipping the molecular laboratories to accommodate additional senior scientists, graduate and postdoctoral trainees; upgrading instrumentation with the latest high-throughput technology; and scientific outreach and dissemination via website, online databases, and other means.

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 State-wide 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 healthcare delivery system, and affiliations with more than 200 health care and educational institutions State-wide.

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 State-wide in scope and include collaborations both within the University system and with our affiliates.

Our first priority is the development of the Regional Biocontainment Laboratory at UMDNJ-New Jersey Medical School in Newark. The 2001 terrorist attacks on the United States, the release of anthrax through the United States mail, and the proliferation of biological weapons materials and technologies have resulted in an unprecedented sense of urgency for greater bioterrorism preparedness. In 2003 the NIH-National Institute for Allergy and Infectious Diseases (NIAID) selected the Northeast BioDefense Center (NBC), a consortium of research organizations spread across four States, as one of eight Regional Centers of Excellence for BioDefense and Emerging Infectious Diseases Research. Scientists at UMDNJ, along with researchers at Rutgers University and the Public Health Research Institute, are key part-

ners in helping the NBC frame practical solutions to public health threats emanating from both bioterror and emerging infectious diseases.

Following NIAID's designation of the Northeast BioDefense Center as a Regional Center of Excellence, UMDNJ-New Jersey Medical School was awarded almost \$21 million from the NIH to build a 13,000-square-foot regional biocontainment (Bio Safety Level-3) laboratory at the International Center for Public Health (ICPH) in Newark, New Jersey. NIH views the construction of the regional biocontainment laboratories as critical components of the planned network of extramural Regional Centers of Excellence to accelerate research on the highly dangerous and infectious pathogens in the biodefense field.

This new BSL-3 facility augments two other existing laboratory facilities at the ICPH and on the UMDNJ Newark campus, and once operational, will bring the total BSL-3 space in Newark to 21,500 square feet, creating one of the largest focal points of containment space in the country. Of the 208 scientists participating in the NBC program, more than 50 percent work within 25 miles of Newark. The construction of the laboratory will allow a critical mass of biodefense scientists to be assembled in Newark, forming the heart of biodefense and infectious disease research in the region. The strategic location of the new laboratory is well suited to provide infrastructure support to regional public health agencies in the event of a national bioterrorism emergency. UMDNJ respectfully seeks \$10 million in targeted appropriations to supplement the NIAID award as the received funds do not fully provide for the laboratory's construction.

Our second priority is the development of the Child Health Institute of New Jersey at 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 will be the cornerstone institution of a major research and clinical effort to understand, prevent and treat childhood diseases. It 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 Bristol-Myers Squibb 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.

Research at the Child Health Institute will focus on molecular mechanisms of early embryonic development, a natural, but vulnerable, water-based environment. Normal child development is a water dependent process, reflecting water quality, quantity and its "management" by cells and tissues. A critical component of the research infrastructure being developed within the Child Health Institute is an Imaging Core Facility. Through this facility researchers will be able to better visualize the dynamics of structures within cells and cells within developing tissues. Under-

standing these dynamics is crucial to expanding knowledge of the processes involved in embryonic and later development.

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 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 more than \$40 million to fund its building and programs through a strong partnership among private, corporate and government entities. 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 for the Imaging Core Facility within the Child Health Institute.

Support is also requested in fiscal year 2005 to enable the Informatics Institute of the University of Medicine and Dentistry of New Jersey to recruit additional faculty and build core research facilities for modern drug discovery. This initiative will strengthen the University's graduate program in bioinformatics that is training the next generation of scientists in the field, and will accelerate the work of UMDNJ scientists to convert research findings into novel drug candidates.

Bioinformatics is revolutionizing biomedical research by integrating mathematics, computer science, molecular biology and genetics. Scientists use bioinformatics to accelerate the discovery of new drugs and vaccines for the prevention and treatment of many diseases. The Informatics Institute was established in 2001 to strengthen informatics-driven activities at the University of Medicine and Dentistry of New Jersey and to forge new academic/industry partnerships in this emerging area. The University's first graduate program in bioinformatics, funded by a \$2.3 million grant from the State of New Jersey, is helping to meet a critical shortage of skilled workers in bioinformatics and related disciplines.

Academic collaborations already established by the Informatics Institute are advancing priority Federal goals in homeland security and the discovery of cures and treatments for major diseases. Partnerships forged by the Institute complement and enhance significant Federal resources that have strengthened UMDNJ's centers of excellence in biodefense and infectious disease research, cancer research and treatment, environmental health and toxicology, and biomedical polymer engineering.

UMDNJ presently supports a broad array of research programs engaged in the discovery and characterization of potential drug targets (genes, proteins). However, the full value of these substantial research accomplishments is often lost, due to the absence of capacity for translating these targets into novel drug candidates. This capability can be provided only through major investment in resources for modern drug discovery: bioinformatics, computer-aided molecular modeling and design, medicinal chemistry, and high-throughput synthesis and screening of drug candidates. The opportunity is especially compelling in New Jersey, which is home for 15 of the world's largest pharmaceutical companies and more than 150 biotechnology companies and which ranks highest in per capita number of scientists and engineers in the Nation.

The sustained growth of our graduate program and other informatics initiatives requires a major investment in computational facilities and the recruitment of addi-

tional bioinformatics faculty and staff. We respectfully seek Federal participation of \$6 million in fiscal year 2005 to recruit additional bioinformatics and medicinal chemistry faculty and postdoctoral researchers, and to build core research facilities for modern drug discovery.

We thank this committee for its strong support of biomedical research and for the University's programs.

PREPARED STATEMENT OF THE CALIFORNIA GOVERNMENT AND PRIVATE SECTOR
COALITION FOR OPERATION CLEAN AIR'S 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 2005 funding request of \$11,000,000 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 \$11,000,000 from DOE for alternative fuels and utility infrastructure funding.

California's great San Joaquin Valley is in crisis. Home to over 3.3 million people, its 25,000 square miles now has the unhealthiest 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 ozone 8-hour Federal health standard.

A combination of geography, topography, meteorology, tremendous population growth, urban sprawl and a NAFTA corridor of two major highways with over 5 million diesel truck miles per day, have collided to produce an air basin in which over 300,000 people, nearly 10 percent of the population, suffer 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 creates 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. In December 2003, the San Joaquin Valley Air Pollution Control District Board decided to become the first Air District in the Nation to voluntarily declare itself an "extreme" non-attainment area. This designation, if approved by USEPA, will defer until 2010 the date for attainment of Federal standards of air quality, but comes at a cost of imposing permitting on thousands of more businesses and even further discouraging business expansion or relocation. More Valley's businesses will be 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 chronic unemployment rates of nearly 20 percent. Encouraging business expansion in or relocation to the San Joaquin Valley to combat unemployment will be extremely difficult in the face of such regulatory burdens.

The San Joaquin Valley is home to the most productive agricultural land in the world. Over 350 crops are produced commercially on 28,000 farms encompassing 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 does contribute to the problem. However, it is a \$14 billion industry that forms the backbone of the Valley's economy, and its vitality is crucial.

Industry alone is not the source of the Valley's poor air quality. Population growth rates exceeding those in the rest of the State and most 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, and Federal free trade policies. Other factors such as fireplace burning in the winter, open field agricultural burning because of lack of sufficient 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 (an area the size of the State of Connecticut) 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 eight-county San Joaquin Valley Air Pollution Control District. 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 2005, our Coalition is seeking funding of \$11,000,000 from the Department of Energy's (DOE) Energy Supply Program for the installation and operation of alternative fuels infrastructure throughout the San Joaquin Valley Air Basin. Infrastructure for both mobile and stationary engines is included and will allow for the accelerated introduction of alternatively fueled vehicles in municipal fleets, public school fleets, and private fleets as well as for stationary, agricultural irrigation pump engines in the rural areas. The widespread use of lower-emitting engines will provide significant improvement to air quality in the San Joaquin Valley while furthering the goals of the President's National Energy Policy, which recommends enhancement of the supply of reliable energy while protecting our environment. OCA believes, like DOE, that there is direct applicability of alternative fuel (e.g. natural gas) engine expertise to the development and deployment of hydrogen power systems. OCA wants to see the San Joaquin Valley as the first area in the Nation for hydrogen infrastructure development and hydrogen vehicle deployment. This is in direct alignment with the Secretary's long-term vision of a zero mission future, free of reliance on imported energy. Development of alternative fuel infrastructure will augment the low-emission vehicle program by providing much needed compressed natural gas (CNG) and liquefied natural gas (LNG) fueling facilities.

Thank you very much your consideration of our requests.

PREPARED STATEMENT OF THE UNIVERSITY OF ROCHESTER
PROGRAM

DOE Inertial Confinement Fusion Program—DOE [National Nuclear Security Agency (NNSA)] Defense Programs for fiscal year 2005.

BACKGROUND

The inertial confinement fusion (ICF) program is a key element in the Department of Energy's (DOE) Stockpile Stewardship Program (SSP) authorized by Public Law 103-160 to "establish a stewardship program to ensure the preservation of the core intellectual and technical competencies of the United States in nuclear weapons." The OMEGA laser at the University of Rochester's Laboratory for Laser Energetics (LLE) is the principal laser research facility for the University and three national laboratories (Los Alamos, Sandia, and Livermore) for ICF and SSP experiments. LLE is the only facility that also trains significant numbers of graduate students in inertial fusion. The OMEGA laser, the highest-power ultraviolet fusion laser in the world, is the principal laser facility for SSP activities for DOE in fiscal year 2005 and for a number of years to come. The Secretary of Energy Advisory Board (SEAB) National Ignition Facility Laser System Task Force Report noted the importance of continuing scientific contact with "... the laser-based research at the University of Rochester."

LLE (since 1970) is the only ICF program that has been jointly supported by the Federal Government, State government, industry, utilities, and a university. LLE makes fundamental scientific contributions to the national program. The Laboratory transfers technology to the public and private sectors through the training of graduate students and interactions with industry and other Federal laboratories. The

Laboratory also serves as a National Laser Users' Facility benefiting scientists throughout the country.

The present primary mission of LLE's research is to validate the direct-drive option for ICF intended for use on the National Ignition Facility (NIF) in order to demonstrate ignition and energy gain. DOE proclaimed that OMEGA is also needed to meet mission-critical requirements for ignition on NIF, and to conduct experiments to support the SSP mission, including some that are classified, in collaboration with the national laboratories.

The OMEGA laser at LLE is the only operating experimental facility that can demonstrate the scientific potential of direct drive to provide a modest- to high-gain energy option for the Nation. For fiscal year 2005 funds are also requested to continue construction of the extended performance capability (EP) to the OMEGA facility and funds to continue to develop petawatt technologies for the national program. DOE has approved the mission need and purchase of long-lead procurements during fiscal year 2003, and approval of the final design is expected during fiscal year 2004. The Congress provided \$20,000,000 to continue the OMEGA EP project in the fiscal year 2004 Energy and Water Development Appropriation Act, which will significantly expand the research capabilities of the existing OMEGA facility. OMEGA EP provides the Nation with an enhanced capability to perform SSP experiments, to test high-gain ICF concepts, and to provide a premier high-intensity-laser interaction facility for the United States. The University of Rochester is providing a new building (\$20 million) for the OMEGA EP project at no cost to the government. Because the new cost-shared facility will keep the research at the LLE technologically current, LLE will be able to continue to be a national and world leader in its field, and serve as an important, cost-effective support facility to assure the success of the NIF. This represents an unusually successful partnership among the private sector, academia, and the State and Federal governments. The OMEGA facility will be the only large laser implosion facility for NNSA in the United States until at least 2008 when NIF construction is completed.

REQUESTED ACTION

To provide the support for program deliverables and the operation and extension of OMEGA (for both ICF experiments and SSP experiments), and to maintain the related training programs at Rochester, a total of \$69,469,000 for the University of Rochester for fiscal year 2005 is required. This amount includes \$41,469,000 for operating funds and \$4,000,000 for the OMEGA EP facility included in the administration's request, and an additional \$21,000,000 for the OMEGA extended performance capability, and \$3,000,000 for petawatt technology development required to maintain the cost and schedule of the project.

DISCUSSION

Thermonuclear fusion is the process by which nuclei of low atomic weight such as hydrogen combine to form higher atomic weight nuclei such as helium. In this process some of the mass of the original nuclei is lost and transformed to energy in the form of high-energy particles. Energy from fusion reactions is the most basic form of energy in the universe; our sun and all other stars produce energy by thermonuclear fusion reactions occurring in their interior. Fusion is also the process that provides the vast destructive power of thermonuclear weapons. The most significant long-term potential commercial application of fusion is the generation of electric power.

To initiate fusion reactions, the fuel must be heated to tens of millions of degrees. In stellar bodies, containment is possible because of the large gravitational force. On earth, two approaches are being investigated to demonstrate controlled fusion: magnetic confinement fusion and inertial confinement fusion (ICF). ICF involves the heating and compression of fusion fuel by the action of intense laser or particle beam drivers. There are two approaches to ICF, direct and indirect drive: indirect drive involves the conversion of beam energy to X-rays to compress a fuel capsule in an enclosure called a hohlraum; direct drive involves the direct irradiation of spherical fuel capsules by energy from a laser and may be more energetically efficient than indirect drive. For either approach, if very extreme density and temperature conditions are produced, it is possible to produce many times more energy in these fusion reactions than the energy provided by the drivers.

OMEGA EXTENDED PERFORMANCE (OMEGA EP) FACILITY AT UR/LLE

The University of Rochester's Laboratory for Laser Energetics (UR/LLE) is the lead laboratory for direct-drive inertial confinement fusion (ICF) and is the location of the OMEGA laser facility. Only three facilities, OMEGA at Rochester, Z at

Sandia National Laboratory, and a few operating beamlines of NIF are available to conduct high-energy-density physics experiments in support of the Nation's Stockpile Stewardship Program (SSP) and ICF. (In fiscal year 2003, over half of the OMEGA shots, 742, were for outside users, including 578 for the national laboratories.) OMEGA and the National Ignition Facility (NIF) under construction at the Lawrence Livermore National Laboratory are designed to support SSP and ICF by performing planar-target and spherical-implosion experiments at high laser irradiation intensities. Using high-energy, high-power lasers, a highly compressed core of deuterium-tritium fuel can be assembled that, with the full energy of NIF, will achieve controlled thermonuclear ignition and gain. (Ignition refers to initiating a self-sustaining fusion reaction, and gain refers to achieving more energy out of the reaction than was used to initiate it.)

Three years ago UR/LLE proposed to construct a super-high-intensity, high-energy laser facility. DOE has approved the mission need and purchase of long-lead procurements in fiscal year 2003, and approval of the final design is expected during fiscal year 2004. The Fiscal Year 2004 Energy and Water Development Appropriations Act provided \$20,000,000 to continue this project. The project schedule and cost, based on actual funding received to date, are shown in the table below. The total cost (\$82,000,000 in as-spent dollars) is unchanged from the previous request. The University of Rochester is providing a building, estimated to cost about \$20,000,000 to house the new facility. The new building is under construction and is slated for completion by January 2005.

OMEGA EP will significantly benefit SSP and ICF through the ability to produce intense photon, proton, and electron beams for radiography and by conducting experiments to test advanced computer codes relevant to nuclear weapons, basic science, and astrophysics. There are additional exciting basic science applications that enhance our national ability to attract and retain the scientific expertise required for the United States' nuclear weapons program in the future.

Super high-intensity, high-energy laser sources will significantly advance ignition physics. Very high intensities allow the ICF and SSP programs to test advanced concepts that can increase the gain of an ICF target. During the past year, LLE scientists have examined using NIF for direct drive (laser light directly drives the target). Calculations indicated that the gain is potentially at least three times larger than can be achieved using indirect drive (conversion of laser light to X-rays that drive the target). Since a conversion of laser light to X-rays is not required for direct drive, the efficiency of the process is higher. With direct drive, the target absorbs about five times more energy, and it is this increased energy that is responsible for the higher gain.

OMEGA EP, when completed, will support the SSP and ICF programs. Concomitantly, with the delay of the NIF this added capability would contribute substantially to the critical need to recruit and retain graduate students, postdoctoral associates, University faculty members, and national laboratory scientists in areas of national need.

OMEGA is the only facility capable of assembling a highly compressed deuterium-tritium core from a cryogenic target; it is the only location where advanced concepts for ignition and gain can be tested. Other advantages include (1) operating synergies with OMEGA will reduce operating costs, (2) UR/LLE has an established scientific user base, and (3) UR/LLE has a proven track record of delivering similar-sized projects on time and on budget as well as operating and maintaining large-scale laser systems.

The construction time line and cost for this extended capability is as follows:

(In millions of dollars)

		Fiscal Year 2004	Fiscal Year 2005	Fiscal Year 2006	Fiscal Year 2007
Design & Long Lead Procurement	13	.....	.....	.....	.....
Procurement and Assembly .....	.....	20	25	.....	.....
Integration & Commissioning .....	.....	.....	.....	17	7

Total Project Cost.—\$82,000,000 (OMEGA EP) plus \$20,000,000 (building) plus \$1,500,000 from New York State (auxiliary target chamber) equals \$103,500,000. (This is for OMEGA EP, \$82 million from the Federal Government, \$20 million from the University, and \$1.5 million from New York State. Not included is the operating and research cost that are included in the administration's request annually.)

PREVIOUS FEDERAL FUNDING

	Amount
Fiscal Year 2004 Appropriation	\$63,132,000
Fiscal Year 2003 Appropriation	47,878,800
Fiscal Year 2002 Appropriation	34,693,000
Fiscal Year 2001 Appropriation	33,150,000

REQUESTED ACTION

To provide the support for program deliverables and the operation and extension of OMEGA (for both ICF experiments and SSP experiments), and to maintain the related training programs at Rochester, a total of \$69,469,000 for the University of Rochester for fiscal year 2005 is required. This amount includes \$41,469,000 for operating funds and \$4,000,000 for the OMEGA EP facility included in the administration's request, an additional \$21,000,000 for the OMEGA extended performance capability, and \$3,000,000 for petawatt technology development required to maintain the cost and schedule of the project.

PREPARED STATEMENT OF THE ENERGY SCIENCES COALITION

Chairman Domenici, the Energy Sciences Coalition expresses its great appreciation for the leadership you have shown as chairman of the Energy and Water Development Appropriations Subcommittee. We applaud your vision of how the programs of the Department of Energy's Office of Science will lead to research discoveries and technological developments benefiting this and future generations. We are requesting \$3.8 billion for the Office in fiscal year 2005.

The Energy Sciences Coalition is a broadly based organization representing scientists, engineers and mathematicians in universities, industry, professional societies, and national laboratories. We share your belief that the research supported by the Office of Science has and will make significant contributions to our Nation's security and standard of living.

The coalition supports the findings of several reviews of the programs of the Office of Science, and the pressing need to augment its funding. Last fall, Secretary Spencer Abraham's Advisory Board released a report on the department's science programs. This task force panel was chaired by MIT President Charles Vest, including the former president of the NASDAQ Stock Market; industry, university, and association CEOs; and senior policy analysts. Among their findings and conclusions are:

"America can be free, secure and economically strong in the 21st century only if we continue to excel in science and advanced technology." "America can meet its energy needs if and only if we make a strong and sustained investment in research in physical science, engineering, and applicable areas of life science, and if we translate advancing scientific knowledge into practice." "DOE science budgets have not received the priority merited by their importance to our Nation's future energy, security, and economy." "The federal investment in physical science and engineering has been stagnant for over thirty years. During this same period, the Department's national laboratories have suffered from decay and deferred maintenance, and U.S. industry has largely phased out its basic research programs and organizations. As a result, the U.S. is no longer the clear leader in some important areas of science."

Groundbreaking research supported by the Office of Science is conducted in universities and other institutions across the United States.

Our Nation benefits not only from the discoveries that will be made with this support, but also from the training of America's next generation of researchers. Such training will be instrumental in maintaining our Nation's technological superiority in the international marketplace. The Office of Science also plays an extremely important and unique role in the design, construction, and operation of large-scale user facilities used by researchers supported by the Department of Energy, National Institutes of Health, and the National Science Foundation.

Enclosed please find a copy of the Energy Sciences Coalition's fiscal year 2005 funding statement. After carefully considering the President's science goals in areas such as hydrogen energy, fusion, the human genome, climate change, and a review of the 20-year facilities and strategic plans, the Coalition recommends an increase in the budget for the Office of Science of not less than \$350 million to a level over \$3.8 billion.

In closing, I again express the coalition's gratitude for the leadership that you and your colleagues have demonstrated in supporting the important work of the Office of Science. Please do not hesitate to contact me if the Coalition can be of any assistance.

The Energy Sciences Coalition (ESC) supports the Department of Energy (DOE) Office of Science funding levels approved by both the House and Senate in their respective versions of the Energy Policy Act. These funding levels are easily justifiable given the tremendous scientific opportunities that currently exist, as well as the broad range of other science-related issues that the Office of Science is uniquely positioned to address. These opportunities, and the facilities and projects needed to achieve them, are well documented and outlined in both the Department's 20-year scientific facilities plan released in November 2003 and the Secretary of Energy Advisory Board's (SEAB) December 2003 report on DOE science.

However, the Energy Sciences Coalition is also aware of the significant fiscal constraints facing the administration and Congress this year. Weighing the economic and national security value of investments in these science programs against current fiscal constraints, the Energy Sciences Coalition urges an fiscal year 2005 increase of not less than \$350 million for the DOE Office of Science, bringing the total DOE Office of Science budget to a level over \$3.8 billion. While significantly less than the fiscal year 2005 levels contained in the House and Senate passed energy policy bills cited above, this figure is similar to the funding levels these bills contained for fiscal year 2004.

We believe that growth for the DOE Office of Science at a rate lower than 10 percent in fiscal year 2005 and in the next few years—a growth rate which is less than what is called for in the House and Senate authorization bills—will make it virtually impossible for the Department to move forward with the initiatives and recommendations outlined in the 20-year plan and by SEAB without severely damaging already existing and very successful DOE science programs.

FISCAL YEAR 2005 ESC FUNDING STATEMENT ENDORSEES

American Chemical Society; American Institute of Physics; American Mathematical Society; American Physical Society; American Society of Agronomy; American Society of Plant Biologists; Association of American Universities; Battelle; Crop Science Society of America; Fusion Power Associates; General Atomics; Krell Institute; Massachusetts Institute of Technology; Michigan State University; National Association of State Universities and Land-Grant Colleges; North Carolina State University; Ohio State University; Optical Society of America; Princeton University; Purdue University; Society for Industrial and Applied Mathematics; Soil Science Society of America; Southeastern Universities Research Association; Stanford University; Stony Brook University; Universities Research Association, Inc.; University of California; University of Chicago; University of Cincinnati; University of Houston; University of Pittsburgh; University of Southern California; University of Tennessee; University of Washington; University of Wisconsin-Madison.

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 68-university member consortium that manages and operates the National Center for Atmospheric Research (NCAR) and additional programs that support and extend the country's scientific research and education capabilities. In addition to its member research 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's principal support is from the National Science Foundation (NSF) with additional support from other Federal agencies including the Department of Energy (DOE).

DOE OFFICE OF SCIENCE

We were extremely pleased to see the recommendations of the task force of the Secretary of Energy Advisory Board contained in the Final Report of the Task Force on the Future of Science Programs at the Department of Energy. The scientific com-

munity is aware that the report recommendation to strengthen the Federal investment in the physical sciences and advanced engineering research is supported by many members of Congress; it is a recommendation on which I am sure many subcommittee members would like to act.

DOE is the largest Federal sponsor of basic research in the physical sciences, but the level of funding for DOE's core science programs has remained stagnant for years, while the number of "congressionally directed projects" has increased. While many of these add-ons seem worthy, they are diverting DOE's base funding from peer-reviewed research programs that are planned well in advance to accomplish DOE's mission in service to the country and are competed among the country's top researchers.

In the House Science Committee's recently released "Views and Estimates" for fiscal year 2005, the committee acknowledges the very difficult budget decisions Congress will have to make this year. However, as it has in past years, it criticizes the administration's budget request for DOE's Office of Science, calling it "inadequate" and "dwarfed" by support for the life sciences in recent years. Two bills, H.R. 34 and S. 915, authorize increased funding for the Office of Science, essentially doubling its budget. The conference report to H.R. 5, The Energy Policy Act of 2003, recommends that the Office of Science budget be funded at \$4.2 billion, a 23 percent increase over the fiscal year 2004 amount.

As you are well aware, a healthy science budget ensures a vital workforce, strong economy, and contributes directly to national security. The administration's fiscal year 2005 request cuts DOE's Office of Science by 2 percent. I urge the subcommittee to fund the DOE Office of Science at the level of the fiscal year 2004 Original Appropriation plus Adjustments, or \$3.5 billion, at the very least, and to enable the agency to apply the entire appropriated amount toward planned agency research priorities. This level of research funding will critically augment and reinvigorate the work of researchers throughout the Nation.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH

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, yet the request of \$496.6 million for BER research is down over 29 percent from the fiscal year 2004 enacted level of \$641.5 million. This reduction eliminates over \$80.0 million worth of "extra projects" funded last year.

Peer-reviewed university research programs play a critical role in the BER program involving the best researchers the Nation's institutions of higher learning have to offer, and developing the next generation of researchers. Approximately half of BER basic research funding supports university-based activities directly and indirectly. All BER research projects, other than those in the "extra projects" category, undergo regular peer review and evaluation. In step with the recommendation made above for the Office of Science, I urge the subcommittee to fund Biological and Environmental Research at the level of the fiscal year 2004 Original Appropriation plus Adjustments, or \$641.5 million, and to enable BER to apply the entire appropriated amount toward planned agency research priorities that are peer-reviewed and involve the best researchers to be found within the Nation's university research community as well as the DOE labs.

CLIMATE CHANGE RESEARCH

Within BER, the Climate Change Research long-term goal is to deliver improved climate data and models for policy makers to determine safe levels of greenhouse gases for the Earth system. This work is critical to the health of the planet. The extremely important target capability for fiscal year 2005 is to enable studies of the interactions between the carbon cycle and climate and between secondary sulfur aerosols and climate. The Climate Change Research Request of \$142.9 million is flat with the fiscal year 2004 Original Appropriation level. I urge the subcommittee to fund Climate Change Research at a level that is consistent with the request for BER stated above.

Climate Change Research is composed of several programs of great importance to the atmospheric sciences community and the Nation. Climate and Hydrology contains Climate Modeling which develops the best coupled atmospheric-ocean general circulation models, and Atmospheric Radiation Measurement (ARM) Research which contributes to our understanding of the processes that control solar and thermal infrared radiative transfer through clouds and at the earth's surface. ARM supports a number of scientific "Fellows," making an important contribution to the develop-

ment of the next generation of climate scientists. Both Climate Modeling and ARM are programs that are of critical importance to the Nation's overall climate change research efforts. Climate and Hydrology receives a 0.6 percent increase in the fiscal year 2005 request. I urge the subcommittee to fund Climate and Hydrology at a level that is consistent with the request for BER and Climate Change Research stated above.

Also within Climate Change Research, Atmospheric Chemistry and Carbon Cycle is a program that includes Atmospheric Science, the work of which is essential for assessing the effects of energy production on air quality and climate through the quantification of the impacts of energy-related aerosols on climate. This work will be closely linked with the ARM program described above. I urge the subcommittee to fund Atmospheric Chemistry and Carbon Cycle at a level that is consistent with the request for BER and Climate Change Research stated above.

GLOBAL CHANGE EDUCATION PROGRAM (GCEP)

Within the Climate Change Research program, the Global Change Education Program funds the DOE's Summer Undergraduate Experience and Graduate Research Environmental Fellowships, as well as positions in the Significant Opportunities in Atmospheric Research and Science (SOARS) program, which is managed by UCAR. The DOE education programs are not slated to receive an increase, which has been the case for many years. DOE participation in the multi-agency funded SOARS program has been eliminated completely by BER program managers because of funding issues.

The lack of ethnic diversity among advanced-degree atmospheric science graduates is well documented. SOARS is a model mentoring program, which received the prestigious Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring in 2001. Now in its eighth year, SOARS provides a unique, 4-year experience for underrepresented students interested in graduate work in the atmospheric and related sciences. If funding for the Climate Change Research Program does not increase over the fiscal year 2005 requested level, underrepresented students will be turned away from this invaluable SOARS experience.

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. The Intergovernmental Panel on Climate Change (IPCC) has begun work on its Fourth Assessment Report to be completed in 2007, and ASCR's contribution to this international document will be critical. In order to maintain our international leadership in advanced computing, I urge the subcommittee to provide ASCR with the requested level of \$204.3 million.

CONCLUSION

On behalf of UCAR and the atmospheric sciences research community, I want to thank the subcommittee 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 2005 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 SOUTHERN STATES ENERGY BOARD

Mr. Chairman, the Southern States Energy Board (SSEB) is pleased to provide this statement for the record to the U.S. Senate Appropriations Subcommittee on Energy and Water Development as it considers fiscal year 2005 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 2005 budget request. SSEB governors recommend that the Congress appropriate \$5,000,000 to the State/Regional Biomass Partnership and direct the Department to work with regional governors' organizations, specifically the Southern States Energy Board, the Coalition of Northeast Governors Policy Institute, the Council of Great Lakes Gov-

ernors and the Western Governors' Association, to make the Partnership even more successful.

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.

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 and \$2,000,000 in the Fiscal Year 2004 Energy and Water Development Appropriations bill. In addition, the Board wishes to commend the administration for reinstating the State/regional biomass partnership in the fiscal year 2005 budget request. SSEB and other regional governors organizations received new cooperative agreements for the fiscal year 2003 funding on March 2, 2004.

Energy independence is a critical element in the administration's Energy Policy and can be significantly enhanced by developing viable domestic alternative energy sources. Funding for the State/regional biomass partnership greatly enhances the States' ability to participate in the development of biomass energy markets.

As the precursor to the State/Regional Biomass Partnership, 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 partnerships, 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, the Council of Great Lakes Governors and the Western Governors' Association) are recognized nationally for their combined experience related to biomass technologies and policies. SSEB and other regional governors' organizations hosting State/regional biomass energy partnerships are critical to 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.

In the past, 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 and a Federal representative named by the President under Public Law 87-563 and Public Law 92-440. 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 State/regional biomass activities, provided more formal interaction between the States and improved policy development and coordination in particular.

We urge Congress to include this modest but vital appropriation in the fiscal year 2005 Energy and Water Development Appropriations bill to protect the Federal Government's 20-year investment in State/regional biomass activities, and to continue the promotion of the strong Federal interest in viable and growing biobased products and bioenergy.

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 43,000 members, appreciates the opportunity

to provide written testimony on the fiscal year 2005 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.

DOE OFFICE OF SCIENCE

The scientific enterprise and the overall economy continue to benefit enormously from investments in the basic sciences made by the DOE Office of Science. The DOE Office of Science, the Nation's primary supporter of the physical sciences, is also an essential partner in the areas of biological and environmental science research as well as in mathematics, computing, and engineering. Furthermore, the Office of Science supports a unique system of programs based on large-scale, specialized user facilities that bring together working teams of scientists focused on such challenges as global warming, genomic sequencing, and energy research. The Office of Science is also an invaluable partner in certain scientific programs of the National Institutes of Health (NIH) and the National Science Foundation (NSF) and supports peer-reviewed, basic research in DOE-relevant areas of science in universities and colleges across the United States. 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 goal of producing and conserving energy in environmentally responsible ways. Programs include basic research projects in microbiology, as well as, extensive development of biotechnology-based systems to produce alternative fuels and chemicals, to recover and improve the process for refining fossil fuels, to remediate environmental problems, and to reduce wastes and pollution.

The administration's proposed budget for fiscal year 2005 includes \$3.4 billion for the Office of Science, representing a decrease of \$68 million compared to fiscal year 2004. The 2 percent cut proposed for fiscal year 2005 for the Office of Science is a significant departure from the congressionally authorized level of \$4 billion. The proposed budget for Biological and Environmental Research (BER) in fiscal year 2005 is \$502 million or \$140 million below fiscal year 2004. The proposed budget for Basic Energy Sciences (BES) in fiscal year 2005 would provide \$1.06 billion, representing an increase of \$53 million, or 5.2 percent, over the prior year.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH PROGRAMS

DOE is the lead Federal agency supporting genomic sequencing of non-pathogenic microbes through its Genomics: GTL Program. This sequence information provides clues into how we can design biotechnological processes that will function in extreme conditions and potentially solve pressing national priorities, such as energy and environmental security, global warming, and energy production. The administration has requested \$67.5 million for fiscal year 2005, compared to funding of \$63.5 million for fiscal year 2004. These requests include a \$4 million increase for research on function and control of molecular-scale machines for energy and environmental applications, as well as \$5 million for Project Engineering and Design of the first Genomics: GTL project, the Facility for Production and Characterization of Proteins and Molecular Tags.

In view of the valuable insights and tremendous practical potential from microbial genomic sequencing, the ASM recommends that Congress provide an additional \$25 million for the GTL Program in fiscal year 2005. ASM believes that these additional funds will be vital if DOE's role in this science frontier is to expand.

BER GENOMICS: GTL PROGRAM

Since microbes power the planet's carbon and nitrogen cycles, clean up our wastes, and make important transformations of energy, they are an important source of biotechnology products, making DOE research programs extremely valuable for advancing our knowledge of the non-medical microbial world. 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, use, or reengineer that microbe to address an assortment of national issues. The DOE Genomics: GTL genomic sequencing program has an important impact on nearly every other activity within BER. In addition to this program itself, a substantial portion of the DOE Joint Genome Institute's (JGI) sequencing capacity

continues to be devoted to the sequencing of microbial genomes as well as DNA in mixed genomes obtained from microbial communities dwelling within specialized ecological niches. As part of these efforts, DOE continues to complete DNA sequences of genomes in microbes with potential uses in energy, waste cleanup, and carbon sequestration.

About 40 percent of the JTI capacity is dedicated to serving direct DOE needs, primarily through the Genomics: GTL program, while the remaining 60 percent of this capacity serves as a state-of-the-art DNA sequencing facility for whose use scientists submit proposals that are subject to merit review. These sequencing projects will be conducted at no additional cost for the extramural scientific community. These efforts are expected to have a substantial impact on the BER Environmental Remediation Sciences program, reflecting the fact that much of this program is focusing on the use and role of microbes in environmental remediation. In addition, the Genomics: GTL program will continue to have a major impact on the BER Climate Change Research program because of the role microbes play in the global carbon cycle and the potential for developing biology-based solutions for sequestering carbon.

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 preponderance of microorganisms that cannot yet be grown in culture. 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 and higher levels, and thus urges Congress to fully support this exciting program.

ENVIRONMENTAL REMEDIATION

The overall goal of the DOE Environmental Management Science Program (EMSP), which was transferred from Environmental Management to the BER program, is to support basic research that improves the science base underpinning the clean up of DOE sites. Traditional clean up strategies may not work or be cost effective for many of the challenges that could prevent the successful closure of DOE sites. The EMSP, through its support of basic research, aims to develop and validate technical solutions to complex problems, providing innovative new technologies to overcome major obstacles that lead to future risk reduction and cost and time savings. It is the intent or the expectation of the EMSP that the basic research projects funded are directed toward specific issues and uncertainties at the DOE cleanup sites.

DOE bioremediation activities are centered on the Natural and Accelerated Bioremediation Research (NABIR) program, a basic research program focused on determining how and where bioremediation may be applicable as a reliable, efficient, and cost-effective approach for cleaning up or containing metals and radionuclides in contaminated subsurface environments. In the NABIR program, research advances will be made from molecular to field scales; on genes and proteins used in bioremediation and in overcoming physicochemical impediments to bacterial activity; in non-destructive, real-time measurement techniques; on species interaction and response of microbial ecology to contamination; and in understanding microbial processes for altering the chemical state of metallic and radionuclide contaminants. NABIR activities have a substantial involvement of academic scientists.

Additional EMSP research efforts will focus on contaminant fate and transport in the subsurface, nuclear waste chemistry and advanced treatment options, and novel characterization and sensor tools. In addition, studies on bioremediation of organic contaminants are conducted in EMSP, complementing EMSP projects will continue to be funded through a competitive peer review process. The most scientifically meritorious research proposals and applications will be funded based on availability of funds and programmatic relevance to ensure a complete and balanced research portfolio that addresses DOE needs. Research will be funded at universities, national laboratories, and at private research institutes and industries. This research will be conducted in collaboration with the Office of Environmental Management. Funding is reduced to increase research at and development of Field Research Centers through the NABIR program.

The administration's proposed budget for Bioremediation research, including the NABIR program, is \$105 million, a \$2.8 million decrease compared to fiscal year 2004. The ASM considers these DOE environmental remediation programs to be of considerable importance, and recommends that funding for fiscal year 2005 be increased by an additional \$5 million.

CLIMATE CHANGE RESEARCH

The ASM is pleased to see the administration's support of Climate Change Research continue in its fiscal year 2005 budget. The ASM endorses the President's proposed \$143 million budget for fiscal year 2005, which is about equivalent with levels in fiscal year 2004. The Climate Change Research subprogram seeks to apply the latest scientific knowledge (i.e., genomic, new computational methods) to the potential effects of greenhouse gas and aerosol emissions on the climate and the environment. This program is DOE's contribution to the interagency U.S. Global Change Research Program proposed by President Bush in 1989 and codified by Congress in the Global Change Research Act of 1990 (Public Law 101-106). This program is vital if science is to advance its understanding of the radiation balance between the surface of the Earth and the uppermost portions of the atmosphere and how this will affect the planet's climate and ecosystems.

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 will also identify potential feedbacks from changes in the climate and atmospheric composition. This research is critical if we are to better understand the changes occurring in our ecosystems from increasing levels of atmospheric pollutants.

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 shifts.

BASIC ENERGY SCIENCE

The administration's requested funding for the Office of Basic Energy Sciences (BES) for fiscal year 2005 is \$1.06 billion, representing an increase of \$53 million over 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. Program initiatives include microbiological and plant sciences focused on harvesting and converting energy from sunlight into energy feedstock such as cellulose and other products of photosynthesis, as well as how those chemicals may be further converted into energy rich molecules such as methane, hydrogen and ethanol. Alternative and renewable energy sources will remain of strategic importance in the Nation's energy portfolio, and DOE is well positioned to advance basic research in this area. The advances in genomic technologies have given this research area a tremendous new resource for advancing the Agency's bioenergy goals.

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 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. The budget request for the DOE Nanoscale Science program includes an increase of \$8.7 million to a level of \$211 million for fiscal year 2005. 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. Such commitment will help maintain U.S. leadership in science and technology.

SCHEDULE OF FEDERAL AWARDS 2004

Federal Grantor/Pass-through Grantor/Program Title	Cost Center	Federal CFDA Number	Program or Award Amount	Grants Receivable 1/1/2004	Receipts or Revenue Recognized	Disbursements/Expenditures	Grants Receivable 12/31/2004
MAJOR PROGRAMS:							
Resident Postdoctoral Research	783	93.283	\$999,381.00	\$89,902.49	.....	.....	\$89,902.49
Total Major Programs			999,381.00	89,902.49	.....	.....	89,902.49
OTHER FEDERAL ASSISTANCE:							
HHS:							
NIH:							
NIHMS-MARC	789	93.88	431,300.00	.....	.....	.....	0
Environmental Microorganisms	694	93.856	10,000.00	.....	.....	.....	0
DNA Repair and Mutagenesis	457	93.393	25,000.00	.....	.....	.....	0
Summer Institute	848	93.856	24,000.00	532.99	.....	.....	532.99
Conf Biofilms	425	93.121	25,000.00	25,000.00	.....	.....	25,000.00
Environmental Pathogens	694	93.856	10,000.00	.....	.....	.....	0
Microbial Triggers of Disease	666	93.855	5,000.00	.....	.....	.....	0
Candida and Candidiasis	434	93.121	10,000.00	.....	.....	.....	.....
National Science Foundation:							
Plant Biotechnology	678	47.074	15,000.00	.....	.....	.....	0
Pathogens	697	47.074	110,000.00	33,608.72	.....	.....	33,608.72
Sub Contract BioSciEd Net	787	47.076	100,000.00	30,838.75	.....	.....	30,838.75
Beyond Microbial Genomics	691	47.074	15,000.00	.....	.....	.....	.....
U.S. Department of Energy:							
DNA Repair and Mutagenesis	457	81.049	20,000.00	.....	.....	.....	0
Prokaryotic Development	472	81.049	10,000.00	.....	.....	.....	0
Geobiology	675	81.049	15,000.00	.....	.....	.....	0
Microbial Ecology and Genomics	676	81.049	25,000.00	.....	.....	.....	0
Multicellular Cooperation	671	81.049	15,000.00	.....	.....	.....	0
Systems Microbiology	691	.....	10,000.00	6,461.06	.....	.....	6,461.06
USDA:							
Conference Salmonella	421	10.206	10,000.00	10,000.00	.....	.....	10,000.00
Pre-harvest Food Safety	663	10.001	5,000.00	5,000.00	.....	.....	5,000.00
Pre-harvest Food Safety	663	10.2	25,000.00	19,350.00	.....	.....	19,350.00
Pre-harvest Food Safety	663	10.206	10,000.00	7,000.00	.....	.....	7,000.00
Conf Salmonella Pathogenesis	421	10.206	10,000.00	.....	.....	.....	0
EPA:							
Microbial Ecology	676	66.5	20,000.00	.....	.....	.....	0

Infectious Disease GI Tract	670	66.606	50,000.00	.....	.....	.....	.....	0
PO HHS/FDA Pre-harvest Food	663	.....	10,000.00	.....	.....	.....	.....	10,000.00
PO US Dept of Army	475	.....	10,000.00	.....	.....	.....	.....	0
Total Other Awards .....	.....	.....	1,025,300.00	147,791.52	\$0.00	\$0.00	147,791.52	.....
Total Federal Awards .....	.....	.....	2,024,681.00	237,694.01	0.00	0.00	237,694.01	.....

PREPARED STATEMENT OF THE NUCLEAR ENERGY INSTITUTE

On behalf of the nuclear energy industry, I thank you for your support of nuclear technology-related programs in the Energy Department (DOE) and your oversight of the Nuclear Regulatory Commission (NRC) for fiscal 2004.

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.

My statement for the record addresses three key points for your consideration this year:

(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) Increased research and development (R&D) on advanced nuclear technology is essential to maintain America's leadership role in commercial nuclear technologies.

(3) The NRC's budget and staffing should be reassessed in light of current trends. I also will discuss briefly several important programs that the nuclear energy industry supports, including research into the health effects of low levels of radiation.

CONGRESS SHOULD RECLASSIFY THE NUCLEAR WASTE FUND

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. Currently, Congress funds the used fuel programs within the confines of the discretionary spending allocation for the Energy and Water Development Appropriations bill. As a result, annual appropriations for Yucca Mountain and related programs have been reduced \$723 million below DOE's budget requests in the past 11 years—significantly hampering DOE's progress toward accepting the Nation's used nuclear fuel. Funding shortfalls in past years have forced DOE to defer important programs, including procuring transportation containers for used reactor fuel; acquiring transportation and logistics services; creating the final grant process for providing emergency responder assistance; developing a transportation infrastructure in Nevada; and working with regional, State, tribal and local representatives on transportation planning.

The industry urges Congress to reclassify the Nuclear Waste Fund this year, as proposed by the president's fiscal 2005 budget and introduced as H.R. 3981, to prevent future funding shortfalls for Yucca Mountain. The Nuclear Waste Fund has three unique characteristics that justify modifying the current budget rules governing its use in this way:

- The Federal Government is obligated by law and contracts signed with electric companies that operate nuclear power plants to implement the used fuel management program.
- The fund is intended to cover the entire cost of the Federal Government's commercial used fuel management program over several decades.
- The disposal of used nuclear fuel from commercial reactors is financed entirely through a fee established by Federal law and paid by consumers of electricity generated at nuclear power plants.

INDUSTRY SUPPORTS BUDGET REQUEST OF \$880 MILLION FOR YUCCA MOUNTAIN

The industry greatly appreciates the House for its report language emphasizing the need for early action on infrastructure development for the used nuclear fuel disposal program. The committee's direction resulted in an announcement by DOE on preferences for rail transport in Nevada and should lead to a record of decision on route selection this year.

Last year, the H.R. 6 conference report endorsed the highest level of funding for Yucca Mountain to date. At \$580 million, DOE could address many technical challenges necessary for submitting an application to the NRC by December for a license to construct the repository.

NEI recognizes the challenge that the committee faces in fiscal 2005, based on assumptions included in the budget request on this issue and urges the committee to make allocations under section 302(b) of the Budget Act consistent with fully funding the administration request of \$880 million for Yucca Mountain. Absent sufficient funding in fiscal 2005, the industry does not believe the program will meet key milestones for accepting used fuel in 2010, and these potential delays will result in higher costs for the program and increased liabilities to the government.

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 reactor fuel treatment and management. Such far-sighted programs will allow our Nation to remain the world leader in nuclear technologies. However, technologies like transmutation—the conversion of used nuclear fuel into a smaller volume of less toxic materials—still require a Federal repository for disposal of the radioactive by-products generated from the process.

RESEARCH AND DEVELOPMENT OF NEW NUCLEAR ENERGY SYSTEMS NECESSARY

The industry supports increased funding for fiscal 2005 for DOE's R&D programs for the development of new nuclear energy systems. The nuclear energy industry urges the committee to approve at least \$60 million for the Nuclear Energy Technology (NET) program. Within the NET program, \$10 million should be earmarked for the early site permit process as requested by DOE. This is an important component of the revised NRC licensing process for new nuclear power plants passed by Congress in 1992, and testing is already under way. An additional \$50 million should be used to begin a 6-year, cost-shared program to test the combined operating and construction license process for new nuclear plants, based on the industry's response to a DOE solicitation that will be awarded this year. DOE should support deployment of proven generation III-plus technology for this program.

The industry believes that the government has an early role in bringing advanced reactor concepts, known as Generation IV reactors, to the marketplace. NEI urges your support for a next-generation nuclear plant at the new Idaho National Laboratory, funded through the Generation IV Nuclear Energy Systems Initiative program. The industry also supports the Nuclear Hydrogen Initiative at \$9 million.

Although DOE continues to fund the International Nuclear Energy Research Initiative (I-NERI), the domestic version of this program, NERI, has been terminated and a new initiative has been proposed. We believe the current program fills a vital need identified in a 1997 report by the President's Council of Advisers on Science and Technology (PCAST) and endorsed by the energy secretary's Nuclear Energy Research Advisory Committee. We do not support the change for NERI. Rather, the industry believes this collaborative program between national laboratories, industry and universities should be continued at \$7 million for fiscal 2005.

PCAST also recommended another R&D initiative—the Nuclear Energy Plant Optimization (NEPO) program—to produce additional amounts of affordable energy from America's 103 commercial reactors. Through NEPO, DOE has been working with the nuclear industry and DOE's national laboratories to apply new technology to nuclear and non-nuclear equipment. The industry encourages the committee to allocate \$10 million for the NEPO program to help fund important research on materials management issues at nuclear power plants, including improved availability and maintenance at nuclear plants; technology to predict and measure the extent of materials degradation from plant aging; introducing new materials in a cost-effective manner to mitigate materials effects; and as an underpinning to both the applied materials and technology development and deployment activities, advanced research tools and the evolving knowledge of materials properties. DOE has proposed no funding for the program in fiscal 2005 despite the obvious benefits that the national laboratories can bring to bear on these issues.

The industry also requests \$27.5 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 license renewal continuing at a brisk pace and the industry considering plans for new nuclear 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, Science and Technology to support universities that have undergraduate and graduate programs in health physics. The industry's most recent human resources survey reveals an increasing demand for health physics professionals. This need will become acute in the next few years when many will retire.

NRC BUDGET AND STAFFING SHOULD BE REASSESSED

Our Nation's focus on security has led to significant security enhancements at nuclear power plants. Nuclear power plant security was among the most robust in the industrial sector before the Sept. 11, 2001, terrorist attacks, and our facilities are even more secure today. By year's end, our industry will have invested an additional \$1 billion over the past 2 years in security-related improvements, such as fortified perimeter security, improved background checks and tighter access control and detection ability at our plants. The nuclear energy industry has added 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.

The NRC's proposed fiscal 2005 budget totals \$670.3 million, an increase of \$44.2 from the fiscal 2004 budget, and the highest ever for this agency. Fiscal 2005 is an appropriate time for the NRC to review its budget and resource allocations in light of current demands and other resources available. The industry's 103 commercial reactors are operating at world-class levels of safety and reliability. 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 regulatory process should be undertaken to focus on the more probable, safety-significant events rather than highly unlikely events.

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.

Nuclear Research Facilities.—The industry is concerned with the declining number of nuclear research facilities. We urge the committee to fully fund the request for a DOE lead lab in Idaho for nuclear energy research and development.

Uranium Facility Decontamination and Decommissioning.—The industry fully supports cleanup of the gaseous diffusion plants at Paducah, KY; Portsmouth, OH; and Oak Ridge, TN. Commercial nuclear power plants contribute more than \$150 million to the Decontamination and Decommissioning Fund for government-managed uranium enrichment plants each year. 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 DOE and NRC's international nuclear safety programs. 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 SOCIETY OF NUCLEAR MEDICINE

The Society of Nuclear Medicine (SNM) appreciates the opportunity to submit written comments for the record regarding funding for a National Isotope Program in fiscal year 2005. SNM is an international scientific and professional organization founded in 1954 to promote the science, technology and practical application of nuclear medicine. Its 14,000+ members are physicians, technologists and scientists specializing in the research and practice of nuclear medicine.

To that end, SNM advocates the creation of a National Isotope Program to ensure consistent radioisotope research and production programs as isotope availability is crucial to nuclear medicine procedures and innovation in this field. The Society stands ready to work with policymakers at the local, State, and Federal levels to advance policies and programs that will that our Nation have a steady supply of isotopes for the advancement of nuclear medicine research.

WHAT IS NUCLEAR MEDICINE?

Nuclear medicine is a medical specialty that involves the use of small amounts of radioactive pharmaceuticals, called "Radiotracers" or "Tracers," to help diagnose and treat a variety of diseases. These tracers are detected by special types of cameras that work with computers to provide nuclear medicine physicians and the patient's doctor precise pictures of the area of the body being imaged. It is a way to gather medical information that may otherwise be unavailable, require exploratory surgery, or necessitate more expensive diagnostic tests.

Nuclear medicine procedures, such as PET (positron emission tomography) and SPECT (single-photon emission tomography), often identify abnormalities very early in the progression of a disease—long before some medical problems are apparent with other diagnostic tests. This early detection allows a disease to be treated early in its course when there may be a more successful prognosis.

An estimated 16 million nuclear medicine imaging and therapeutic procedures are performed each year in the United States. Nuclear medicine procedures are among the safest diagnostic imaging tests available. The amount of radiation from a nuclear medicine procedure is comparable to that received during a diagnostic X-ray.

Some of the more frequently performed nuclear medicine procedures include:

- Bone scans to examine orthopedic injuries, fractures, tumors or unexplained bone pain.
- Cardiac scans to identify normal or abnormal blood flow to the heart muscle, measure heart function or determine the existence or extent of damage to the heart muscle after a heart attack.
- Breast scans which are used in conjunction with mammograms to more accurately detect and locate cancerous tissue in the breasts.
- Liver and gallbladder scans to evaluate liver and gallbladder function.
- Cancer imaging to detect tumors and determine the severity (staging) of various types of cancer.
- Treatment of thyroid diseases and certain types of cancer.
- Brain imaging to investigate problems within the brain itself or in blood circulation to the brain.
- Renal imaging in children to examine kidney function.

FUNDING CUTS AND PROGRAM RESTRUCTURING THREATEN NUCLEAR MEDICINE

The Nation needs a consistent, reliable supply of isotopes for medical, security, space power, and research uses. Today, new isotopes for diagnostic and therapeutic uses are not being developed, critical isotopes for national security are in short supply, and demand for isotopes critical to homeland security exceeds supply. Additionally, the national isotope infrastructure is chronically under funded at the DOE.

New science, such as molecular nuclear medicine, is emerging that will require reliable supplies of isotopes. By abandoning isotope research at the DOE, innovative medical research progress into radiopharmaceuticals will be lost, and the medical community will not benefit from valuable discoveries for the diagnosis and treatment of millions of Americans.

Isotopes for research & development (R&D) at reasonable prices are not available due to declining resources and policy change in the DOE Isotope Program. The DOE program and its resources have been declining for two decades, and recent policy changes by DOE have significantly worsened the situation and are impeding the development of new isotope applications. Recently DOE eliminated all R&D funding for DOE applications and production. Lost opportunities to develop new advanced technologies through isotope research will have major impacts on pressing needs of the United States in health care and national security.

The Advanced Nuclear Medicine Initiative (ANMI) at the DOE fostered peer-reviewed nuclear medicine research studies that advanced medical and clinical research and practice in this important area of medicine. The program was funded at \$2.5 million in fiscal year 2000, 2001 and 2002. By abandoning this program in fiscal year 2003, innovative medical research progress into radiopharmaceuticals was lost.

Also, the fiscal year 2003 budget instituted an upfront payment policy for development and production of radionuclides for treatment or research. This restructuring severely hampered researcher's ability to obtain essential radioisotopes by imposing a much higher cost on researchers, and created a difficult payment situation, since researchers often cannot commit outlays until grants are issued and funds are received, with the end result being an adverse effect on public health. A resulting crisis in the availability of isotopes constrained existing nuclear medicine procedures and had a chilling effect on research into new procedures to diagnose and treat serious and life-threatening diseases, such as cancer.

Additionally, relying on foreign sources for radioisotopes severely hampers researcher's ability to obtain essential radioisotopes. Because no commercial isotope-producing reactors exist in the United States, there is a strong dependence on foreign sources for reactor-produced radioisotopes. The U.S. facilities for reactor-produced isotopes are limited to DOE and university reactors, primarily at the University of Missouri Research Reactor Center (MURR). The resulting crisis in the availability of isotopes will constrain existing nuclear medicine procedures and will have a chilling effect on research into new procedures to diagnose and treat serious and life-threatening diseases, such as cancer.

Decline in nuclear and radiochemistry education is not being addressed to avoid impacts on radioisotope production and applications R&D. A recent survey with 19 universities found a continuation of a long-term decline in the number of graduate programs, graduate students, and faculty in the United States in nuclear and

radiochemical fields. Currently, there are 5–10 U.S. Ph.D. graduates in these research fields each year while the projected demand in the near future at the DOE and within the nuclear medicine community will be several hundred Ph.D.'s. In the past, foreign graduates have solved the shortage of nuclear scientists. However, because of a worldwide decline in the number of young scientists in the field, foreign graduates are not available to address the shortage.

CREATION OF A NATIONAL ISOTOPE PROGRAM

Congress should realign isotope resources to create the National Isotope Program to produce essential isotopes, reestablish R&D for production and isotope applications, establish nuclear technology education activity, and support isotope production infrastructure of new and existing facilities.

Major components of a National Isotope Program include:

- Establishment of a national program to meet the national need for isotopes. The program should be supported at the Secretary of Energy level with the program director reporting at a high level in DOE;
- Collaboration with R&D, medical, and industrial users to assess isotope needs and transfer technologies to accelerate applications;
- Facilitation of the transfer of commercially viable isotope programs to the private sector;
- Investment in R&D to improve isotope production, processing, and utilization;
- Continuously monitoring the isotope needs of researchers and clinicians;
- Establishment of an education program to ensure that the next generation of nuclear and radiochemists are trained and available to support the Nation's needs; and
- Upgrade the capability at the University of Missouri and other existing facilities that produce isotopes.

A National Isotope Program will continue innovation in nuclear medicine to meet the health care needs of the Nation. To that end, SNM advocates the allocation of \$25 million in fiscal year 2005 for the creation of the National Isotope Program.

CONCLUSION

The Society of Nuclear Medicine once again stands ready to work with policy-makers to advance policies that will reduce and prevent suffering from disease for all Americans, while ensuring an adequate nuclear medicine workforce. Again, we thank you for the opportunity to present our views on funding for nuclear medicine workforce and research related programs and stand ready to answer any questions you may have.